# **Chapter 5**

**Preparers and Reviewers** 

## 5.0 PREPARERS AND REVIEWERS

## 5.1 List of Preparers

Joseph A. Jarvis. Project Manager, JBR Environmental Consultants, Inc. B.S. and M.S. Wildlife Biology, Humboldt State College. Thirty years of environmental experience, including preparation of numerous NEPA documents, baseline data collection reports, and permitting for right-of-ways. No longer active in project.

*Linda Matthews*. Environmental Analyst/ Project Manager, JBR Environmental Consultants, Inc. B.S. in Environmental Studies, Utah State University, graduate studies in forest ecology, Utah State University. Over 20 years of experience researching, preparing, and managing NEPA documents.

Catherine Clark. Assistant Project Manager, JBR Environmental Consultants, Inc. B.A. Geography, California State University Northridge, M.S. Environmental Resource Management, University of Nevada, Reno. Over 11 years of experience in the environmental field. *No longer active in project*.

*Greg Brown.* Biologist, JBR Environmental Consultants, Inc. B.S. Natural Resource Management, University of Nevada, Reno. Over ten years of experience of performing surveys for special status plant and animal species, baseline surveys for wildlife and vegetation studies, seep and spring surveys, and water sampling for chemical and water quality analysis.

*Erin Hallenburg*. Air Quality Specialist, JBR Environmental Consultants, Inc. B.S. Biology, Mt. Union College, B.S. Civil Engineering, University of New Mexico. Over 16 years of experience in the environmental and engineering field, including air dispersion modeling, regulatory compliance, and air quality studies.

*Alan Isaacson*. Economist, Isaacson and Associates. B.S. Metallurgical Engineering, M.B.A. Over 15 years experience in economic field.

*Karla Knoop.* Professional Hydrologist, JBR Environmental Consultants, Inc. B.S. Watershed Science, Utah State University. Seventeen years of experience in surface water hydrology and erosion studies. Experience includes channel restoration projects, drinking water investigations, storm water permitting, and baseline watershed studies.

Amy Linnerooth. Environmental Analyst, JBR Environmental Consultants, Inc. B.A. Biology, Gustavus Adolphus College, M.S. Biology, University of Nevada, Reno. Over six years experience conducting biological surveys. Additional experience includes preparation of documents for compliance with NEPA. No longer active in project.

*Bill Millar*. Geologist, JBR Environmental Consultants, Inc. B.S. Environmental Science, University of Virginia, M.S. Geology, University of Georgia. Over 16 years of experience in environmental site assessment and geological and hydrogeological assessments. *No longer active in project*.

*Nancy Nething.* Geologist, JBR Environmental Consultants, Inc. B.S. Geology, Oregon State. Over twenty years of experience conducting environmental studies, basin analysis, water resource management, environmental compliance and permit applications, and erosion control. *No longer active in project.* 

*Jenni Prince Mahoney*. Environmental Analyst/Archaeologist, JBR Environmental Consultants, Inc. B.A. Anthropology, University of California San Diego. Over thirteen years of experience in cultural resource management and four years of research and preparation of NEPA documents.

*Jim Sage*. Geologist, JBR Environmental Consultants, Inc. B.S. Geology, Fort Lewis College. Over three years of experience in geology/engineering including soils testing and surveying.

*David Worley*. Biologist, JBR Environmental Consultants, Inc. B.S. Biology, University of Nevada, Reno, M.S. Zoology, University of Nevada, Reno. Over 20 years of experience conducting environmental baseline surveys for a wide variety of wildlife and plant species including raptors, big and small game, bats, aquatic habitat investigations and describing terrestrial and stream ecosystems.

## 5.2 List of Reviewers

Lori Armstrong. Associate Field Manager, USDI-BLM Richfield Field Office. M.S. in Botany/Ecology. Over eleven years experience. *No longer active in project*.

Daniel Bond. USDA-USFS. Roads Engineer. Thirty-two years of experience.

Loren Cabe. Economist, Washington Office Planning Staff. USDI-BLM. M.S. in Resource Economics. Thirty years of experience in economics. *No longer active in project.* 

LaRell Chappell. Soil Scientist, USDI-BLM. B.S. in Agronomy. Thirty-three years of experience in soil resources. Retired 2001. *No longer active in project*.

Cornell Christensen. Ecosystem Staff Officer/ Richfield Field Office Manager. USDA-USFS Fishlake National Forest. Twenty-five years experience in Natural Resource Management.

Ellen Daniels. Editorial Assistant, USDA-USFS. Over ten years of professional experience.

Dale Deiter. Hydrologist, USDA-USFS Fishlake National Forest. B.S. in Forestry. M.S. in Forestry. Eight years of experience as a hydrologist and over 17 years experience in natural resource management.

Kay Erickson. Realty Specialist, USDI-BLM Richfield Field Office. Twenty-two years of experience in land management. Retired May 2003. *No longer active in project*.

Mary Erickson. Forest Supervisor, USDA-USFS. B.S. Forest Management, M.S. Forest Economics. Over 20 Years experience in forest management.

Frank Fay. Planner, USDA-USFS. B.S. in Forest Management. Eighteen years of experience in planning and NEPA preparation. *No longer active in project*.

Timothy Finger. Outdoor Recreation Planner, USDI-BLM. B.S. in Zoology. Ten years of experience in recreation and visual resource management. *No longer active in project*.

Jerry Goodman. Field Manager, USDI-BLM Richfield Field Office. B.S. in Wildlife. Thirty-four years of experience in management. *No longer active in project*.

Larry Greenwood. Wildlife Biologist, USDI-BLM Richfield Field Office. B.S. in Wildlife Biology; M.S. in Botany/Range Science. Twenty-two years experience as Wildlife Biologist; four years experience as Range Conservationist.

Gary Hall. Assistant Field Manager, USDI-BLM Richfield Field Office. B.S. Range Management. Over 26 years experience in land management. *No longer active in project.* 

Craig Harmon. Archaeologist, USDI-BLM Richfield Field Office. M.A. in Anthropology. Thirty-four years of experience in cultural resources.

Jeanne Higgins. District Ranger, USDA-USFS. B.S. in Forestry. Fifteen years of experience. *No longer active in project.* 

Karl Ivory. Rangeland Management Specialist, USDI-BLM Price Field Office. B.S. in Range Science. Seventeen years of experience.

Linda Jackson. Public Affairs Officer, USDA-USFS. B.S. in Geology and Natural Science. Nine years of experience in public relations. *No longer active in project*.

Michael Jackson. Geologist, USDI-BLM Richfield Field Office. M.S. in Geology. Sixteen years of experience in geology and mineral resources.

Rod Lee. Nonrenewable Resource Advisor, USDI-BLM Richfield Field Office. Thirty-one years of experience in lands, realty, and NEPA compliance.

Dick Manus. Field Manager, USDI-BLM Price Field Office. No longer active in project.

Jerry Meredith. Field Manager, USDI-BLM Richfield Field Office. B.A. in Communications. Thirty years of experience. *No longer active in project*.

Rob Mrowka. Forest Supervisor, USDA-USFS. B.S. Resource Management, M.S. Forest Ecology. Over 30 years experience. *No longer active in project*.

Robert M. Neilsen. Industry Economist. BLM Utah State Office. No longer active in project.

E. Stanley Perkes. Mining Engineer. BLM Utah State Office. No longer active in project.

Garth Portillo. Archaeologist, BLM Utah State Office.

Kreig Rasmussen. Wildlife Biologist, USDA-USFS. B.S. in Wildlife and Range Science. Thirteen years of experience in wildlife biology.

Aden Seidlitz. Field Manager, USDI-BLM Richfield Field Office. B.S. Petroleum Engineering. Twenty years of experience. *No longer active in project*.

Michael Smith. Soil Scientist, USDA-USFS. B.S. in Soil Sciences and Natural Resource Management. Twenty-four years of experience in soil science.

Gene Terland. Director (acting), Utah State Bureau of Land Management Office.

George Tetreault. Mining Engineer. BLM Price Field Office. No longer active in project.

Bob Tuttle. Range, USDA-USFS. B.S. in Range Management. Twenty-five years of experience in Rangeland Management.

Jim Whelan. Fisheries Biologist, USDA-USFS. B.S. in Fisheries/Wildlife. Twelve years of experience.

Christopher Wehrli. Assistant Environmental Coordinator, Fishlake National Forest, Richfield, Utah.

Sally Wisely. Director, Utah State Bureau of Land Management Office. No longer active in project.

# Chapter 6

**Public Comments and Responses** 

## 6.0 PUBLIC COMMENTS AND RESPONSES

This chapter contains copies of public comments received in response to the Quitchupah Creek Road Draft EIS. The responses to comments are provided adjacent to the reproduced comment letters. Four hundred and nine public comment letters were received on the DEIS. The letters are organized in this chapter by Federal Agency, State Agency, Native American, Local Entity, Group, and Individual. Letter numbers were designated in the order comment letters arrived at the agency office. Since the letters have been organized into groups, the letters will not necessarily appear in this chapter in numerical order.

A table matrix has been provided to illustrate public concerns in each letter. Group and page number where letters can be found are listed within this table. Group form letters make up 85% of the comment letters received. The following is a list of the letter groups and associated pages:

Federal Agency Letters - pages 6-8 through 6-33 State Agency Letters - pages 6-34 through 6-42 Native American Letters - pages 6-43 through 6-47 Local Entity Letters - pages 6-48 through 6-61 Group Letters - pages 6-62 through 6-129 Individual Letters - pages 6-130 through 6-169 QUITCHUPAH CREEK ROAD FEIS

Public Comments & Responses

## **Public Concerns by Letter**

			<b>.</b>						Concer	ns				
Letter #	Page #	Name	Letter Category Section	Editorial	Purpose & Need	Policies	Air & Noise	Cultural/ Paleo	Livestock Trail	Socio- Economic	TES/ Wildlife	Visual/ Recrea- tion	Water/ Soils/ Geology	Wetland/ Riparian/ Vegetation
1	132	Mark Belles	I											
2	133	Merlin H. Christiansen	I						X					
3, 12-95, 273, 373	63	Robinson Transport	G							X				
4	35	Division of Oil & Gas	SA	X										
5	133-134	Thomas C. Bunn	I	X				X		X				
6-9	64	Barney Trucking	G							X				
10	65	Barney Trucking	G							X				
11	135-136	Thomas C. Bunn	I	X				X		X				
96	137	Jeannine Baker	I					X						
97	138-140	Morgan Robertson	I	X					X	X				
98, 104, 148, 274	66	Triune, Inc.	G							X				
99	141-142	Robert E. Anderson	I				X		X	X				
100	67-68	RMA Sales Mgt. Co.	G		X		X		X	X				
101	36	Representative Bradley T. Johnson	SA							X				
102	69-72	Forest Guardians	G								X		X	

			Ŧ						Concer	ns				
Letter #	Page #	Name	Letter Category Section	Editorial	Purpose & Need	Policies	Air & Noise	Cultural/ Paleo	Livestock Trail	Socio- Economic	TES/ Wildlife	Visual/ Recrea- tion	Water/ Soils/ Geology	Wetland/ Riparian/ Vegetation
103	143	Paul Niemeyer	I								X			
104	144	M.K. Axelgard	I							X				
105	37	UDOT	SA							X				
106	145	Wesley K. Sorensen	I						X					
107	73	Western Mine Tools	G							X				
108-146, 150-179	74	Local Citizens	G							X				
146	146	Kathy Bastian	I											
147	75	Southeastern Utah OHV Club	G					X				X		
149	76	Morgantown Machine & Hydrolics of Utah, Inc.	G							X				
180-267, 277-298, 304-336, 339	77	SUFCO Mine	G							X				
268	44-45	Hopi Tribe	NA					X						
269	147	Ken Christiansen	I						X					
270	49	Glenys Sitterud Emery City	LE					X	X					
271	148	Jammi Siterud	I					X	X					
272	149	Scott Jensen	I							X				

			T						Concer	ns				
Letter #	Page #	Name	Letter Category Section	Editorial	Purpose & Need	Policies	Air & Noise	Cultural/ Paleo	Livestock Trail	Socio- Economic	TES/ Wildlife	Visual/ Recrea- tion	Water/ Soils/ Geology	Wetland/ Riparian/ Vegetation
275	150-153	Thomas C. Bunn	I						X					
276	78	Longwall West, Inc.	G							X				
299	154-155	Don W. and Bonnie P. Keele	I							X		X		
300	50	Sevier County Economic Development	LE							X				
301	156	Fred S. Jenkins	I										X	
302	38	Senator Leonard M. Blackham	SA							X				
303	51	Mayor Emery Town	LE		X					X				
337	79	Industrial Electric Motor Service	G							X				
338	80	RM Wilson Co.	G							X				
340	157-158	Larry D. Brown	I		X			X		X	X			
341	46	Paiute Indian Tribe of Utah	NA					X	X					
342	81	Tram Electric	G							X				
343	82	Tram Electric	G							X				
344	83	Tram Electric	G							X				
345	84	Tram Electric	G	_						X				
346	85	Tram Electric	G							X				

			T						Concer	ns				
Letter #	Page # Name		Letter Category Section	Editorial	Purpose & Need	Policies	Air & Noise	Cultural/ Paleo	Livestock Trail	Socio- Economic	TES/ Wildlife	Visual/ Recrea- tion	Water/ Soils/ Geology	Wetland/ Riparian/ Vegetation
347	86	Tram Electric	G							X				
348	87	Tram Electric	G							X				
349	159	Michael Jewkes	I							X				
350-367	88	SUFCO subcontractors	G							X				
368	89	Custom Supply, Inc.	G							X				
369, 370	90-91	Barclay Mechanical Services, Inc.	G							X				
371	92-93	Utah Wildlife Federation	G							X	X			
372	160	Zanpher Farrer	I					X						
374	52	Salina City	LE							X				
375	94	Savage Industries Inc	G							X				
376	53	Jon Sundstrom Emery Town	LE		X									
377	95	DBT America	G							X				
378	161	Don Jamison	I							X				
379	162	Paula Wellnitz	I		X									
380	96	Joy Mining	G							X				
381-388	97	DBT America	G							X				

			<b>T</b> 44						Concer	ns				
Letter #	Page #	Name	Letter Category Section	Editorial	Purpose & Need	Policies	Air & Noise	Cultural/ Paleo	Livestock Trail	Socio- Economic	TES/ Wildlife	Visual/ Recrea- tion	Water/ Soils/ Geology	Wetland/ Riparian/ Vegetation
389	54	Sevier County SSD No. 1	LE						X					
390	39	Governor Michael Leavitt	SA							X				
391	55	Sevier County	LE							X				
392	56	Six County Assoc. Of Governments	LE							X				
393	163	Carolee Hammel	I							X				
394	57	Sevier County Public Lands Advisory Committee	LE							X				
395	164	J. Rick McEwen	I							X				
396	98-99	Canyon Fuel Company,LLC	G						X					
397	9-17	US EPA	FA	X	X	X	X	X	X	X	X	X	X	X
398	100-104	Utah Archaeological Research Institute	G					X						
399	165-168	David Sucec	I		X			X		X	X			
400	105-110	Castle Valley Ranches	G					X	X	X	X	X	X	
401	40-42	UDWR	SA		X						X		X	X
402	111-112	Utah Farm Bureau	G						X					

			T . 44						Concer	ns				
Letter #	Page #	Name	Letter Category Section	Editorial	Purpose & Need	Policies	Air & Noise	Cultural/ Paleo	Livestock Trail	Socio- Economic	TES/ Wildlife	Visual/ Recrea- tion	Water/ Soils/ Geology	Wetland/ Riparian/ Vegetation
403	113-125	Utah Environmental Congress	G		X	X	X	X		X	X		X	X
404	126-127	Southern Utah Wilderness Alliance	G		X	X				X				
405	169	Kent Petersen	I					X		X				
406	128-129	Interwest Mining Company	G							X				
407							Unas	signed num	ber					
408							Unas	signed num	ber					
409	58-61	Emery County	LE	X	X				X	X			X	
410	47	Ute Indian Tribe	NA					X						
411	18-33	U.S. DOI	FA	X		X	X	X		X	X		X	X

## FEDERAL AGENCY LETTERS

Letters Included:

Letter #397 - United States Environmental Protection Agency

Letter #411 - United States Department of the Interior

## Letter 03/19/02 TUE 11:17 FAX 801 896 9347 FISH LAKE NTL. FOREST Phone #397 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8 999 18<sup>TM</sup> STREET - SUITE 300 DENVER, CD 80202-2464 Phone 800-227-8917 http://www.epa.gov/reglon06 FEB 2 2 2002 RECEIVED Ref: 8EPR-N FEB 2 8 2002 Linda L. Jackson AO ... Public Affairs Officer BAF END GD. Fishlake National Forest PAO\_ 115 East 900 North RANGE Richfield, Utah 84701 PEC\_ Kay Erickson TOO: Realty Specialist Bureau of Land Management Richfield Field Office 150 East 900 North Richfield, Utah 84701 Re: Fishlake National Forest - Richfield BLM Public Lands: Quitchupah Creek Road - Draft Environmental Impact Statement. #10506 Dear Ms. Jackson and Ms. Erickson: In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, The U.S. Environmental Protection Agency (EPA) Region 8 has reviewed the Quischupah Creek Road Draft Environmental Impact Statement (DEIS), dated November, 2001. The United States Forest Service (USFS) and the Bureau of Land Management (BLM) have submitted a request to grant a right-of-way through their lands, in response to an application submitted by the Sevier County Special Services District (SSD). The SSD proposes to construct a public road to be utilized primarily as a coal hauling route for the SUFCO mine. Response 397-1 This DEIS analyzes four alternate routes for the road, including the no-action alternative. The alternatives other than the no-action alternative would reduce the time and expense of hauling Impacts to resources have expanded text in the FEIS to further describe the coal by reducing the distance the trucks have to travel. Because of the lack of specific them, as described in responses below. Applicant committed measures information on impacts, described in our comments below, we are unable to determine whether described in Chapter 2 of the FEIS preclude many of the predicted impacts. these resources will be significantly impacted. The economic and environmental costs of the 397-1 project appear significant, and the impact to the affected local public also appears significant. We believe, therefore, that the costs of this project are not properly justified by the DEIS. Economic benefits have been further documented in Section 3.15 in the FEIS O Printed on Resycled Paper

Letter	03/19/02 TUE 11:17 FAX 801 896 9347 FISH LAKE NTL. FOREST 2010	
#397		Response 397-1 cont.
397-1 cont.	Based on the procedures EPA uses to evaluate the potential effects of proposed actions and the adequacy of the information in the DEIS, EPA will rank this DEIS in the category of EO2. This rating means that the EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environmental impacts. EPA does not believe that the draft EIS is adequate for purposes of the National Environmental Policy Act, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. We have enclosed a summary of EPA's ratings criteria and definitions.  We offer these comments to assist the USFS and BLM in preparing a document that meets the full intent of NEPA, and that results in the best decision possible to protect the environment. If you have any questions concerning these comments, please contact Deborah Lebow at 303 312-6223 or Igbow deborah@epa.gov.  Sincerely  Elyana Sutin, Acting Director NEPA Program, Office of Ecosystems Protection And Respectation.	The construction costs were supplied by Jones & DeMille Engineering. The maintenance costs were derived from the actual costs of maintaining the present coal transport road, the Acord Lakes Road. Table 2.6-1 in Chapter 2 includes costs to construct the proposed road and alternatives but the projected maintenance costs and BMP costs will be included in the FEIS.  Additional information and analysis has been provided in the FEIS for hydrology, soils, socioeconomics, cultural resources, and Native American concerns.
	And Remediation	
	(Enclosures: 3)	
	2	
	397	

## Letter #397

## U.S. Environmental Profection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action\*

#### Environmental Impact of the Action

## LO - - Lack of Objections

The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

## EC - - Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

## EO - - Environmental Objections

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

## EU - - Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnituded hat they are unsatisfactory from the standpoint of public health or welfare or environment all quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

## Adequacy of the Impact Statement

## Category 1 - - Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.



Letter
#397

## Quitchupah Creek Road Draft EIS Environmental Protection Agency Comments

## 397-2

397-3

## Federal Lands Policy on Rights-of-Way

Section 1763 of the Federal Land Policy and Management Act of 1976 addressing Federal land right-of-way corridors states that "In order to minimize adverse environmental impacts and the proliferation of separate rights-of-way, the utilization of rights-of-way in common shall be required to the extent practicable..." The decision-maker should weigh this policy carefully, given the significant adverse environmental impacts to multiple resources associated with the action alternatives for this right-of-way. While the decision maker may have the discretion to override this policy, this EIS does not lead the reader to the conclusion that it is "impractical" for this mine to continue to utilize its existing right-of-way given that the mine is currently profitable, and likely to remain so.

#### Economic Analysis, supporting the Purpose and Need

The public purposes for this project are to save fuel and to promote national efficiency. An additional public purpose may be to provide a secondary route to and from the minc in the event of an emergency. The private purpose is to provide the SUFCO mine a less expensive way to haul coal than the current route, to allow the mine to be more competitive in the coal market. Since this project is a request for a right of way on public land, and there is already access to the mine, the private purpose is less relevant to this project. The fuel savings and other benefits from this project should be balanced with its economic and environmental costs and impacts.

The documented economic costs of the road appear to range from \$6.1 million (Alt. B plus passing lane on SR-10) to \$14.1 million (Alt. D plus passing lane on SR-10). These road building costs seem conservative, and do not appear to take into account the costs of maintenance on the new road, the impacts to the livestock industry (not quantified in the DEIS), cultural impacts, habitat fragmentation (not discussed in the DEIS, but a major impact of roads to the ecosystem), riparian impacts, and visual/aesthetic impacts. The cost of mitigation for cultural and grazing issues alone could be substantial and are not clearly taken into account.

The benefits in terms of fuel cost savings appear to range from 1,194,667 gallons per year (Alt. D) to 1,507,556 gallons per year (Alt. C). Benefits also include improved access for the public to these public lands, minimal benefits to commuters from Emery County, an alternative route in case of emergencies, and the savings in costs of improvements on SR-10 (they range from \$63,636 (Alt. D) to \$918,181 (Alt. C) --SR-10 will need to be upgraded for the coal traffic no matter which alternative is selected. The savings comes in having to improve less of SR-10 with some of the alternatives because of the shortened trip).

It is not clear from this document whether the economic and environmental costs of this project outweigh the benefits. The document does not address how long the mine will be in operation. The fact that the mine has contracts extending out several years indicates that they do not need the road to maintain viability, but are interested in increasing their profit margin. The



## Response 397-2

The reference to FLPMA is noted under Alternative A; the FEIS discusses complications in maintaining the current road system under increased production and transport. See the discussion in Section 2.1 in the EIS (Alternative A -No Action) where it discusses the complications in maintaining the existing road system due to increased truck traffic, especially Acord Lakes Road and SR10. Periodic traffic congestion is expected on Acord Lakes Road if all the truck traffic has to use this road in the upcoming years of increased production at the SUFCO Mine.

## Response 397-3

The costs for the road in the DEIS are construction costs; maintenance would be the responsibility of the county (SCSSD). The tolls from coal trucks would reimburse the SCSSD for all the costs of the road. The mitigation costs will not be known until the decision notice is issued detailing required mitigation but are estimated to be \$0.4 to \$0.6 million. The savings on transporting coal would easily pay for the road, road maintenance, and mitigation. The mine will operate 15-20 years on present known reserves but potential for additional reserves exists adjacent to the mine operating area.

The SUFCO Mine was Utah's largest coal producer in 2004. SUFCO and dependant trucking companies provided 20 percent of the non-farm employment and 28 percent of the personal income in Sevier County in 2002. The mine is an important component of local economies. The presence and stability of the SUFCO Mine, and the families that support it, guarantee a continued demand in both Sevier and Emery counties for bank loans, mortgages, utilities, and other goods and services. This adds to the economic stability of both counties.

The construction costs were supplied by Jones & DeMille Engineering. The maintenance costs were derived from the actual costs of maintaining the present coal transport road, the Acord Lakes Road. Table 2.6-1 in Chapter 2 includes costs to construct the proposed road and alternatives but the projected maintenance costs and BMP costs will be included in the FEIS.

The competitive bids to transport coal forces the trucking firms to use the most fuel-efficient truck. The SUFCO Mine has a very high efficiency rating far out producing other coal mines on a per unit of labor basis, see Section 2.1 Alternative A - No Action. The proposed road is at a lower elevation for most of its length than the Acord Lakes Road so generally it would be more likely to be open in the winter when the other roads are blocked by storms.

However, in an effort to lessen impacts additional mitigation measures will be incorporated into the FEIS as Applicant-Committed Environmental Protection Measures. The response 397-1also explains the economic benefits.

Letter	
#397	

397-3 cont.

397-4

397-5

397-6

document must explain better why it is the public's interest to grant a right-of-way for a road that will have significant environmental impacts.

To provide a clearer picture of the economic costs and benefits, we recommend that the DEIS provide information on how long the mine intends to be viable, the maintenance costs of the new road, and the costs of mitigating for impacts. We believe mitigation may be required for cultural, water quality, wetland, wildlife, and aesthetic/visual impacts, at a minimum. It is also unclear how much of the cost of this project the mine will pay back in tolls. Will the tolls cover the entire cost of the project, including maintenance costs, or are the County and Federal government picking up some of the costs?

For both legitimate public purposes, i.e., reducing fuel usage and allowing a second road for emergencies, there may be other alternatives that meet the purpose that do not involve building roads. For example, in section 2-21, there is a short discussion on conveyor systems to convey coal, but it is ruled out as economically infeasible. It would be useful to know how expensive the conveyor system might be, and whether there are any other options. There should be some discussion about ways SUFCO could cut costs, e.g., whether more efficient trucks are an option, efficiency techniques to reduce energy usage at the mine itself, which would serve the same purpose as building a new road. In terms of an emergency, the DEIS does not explain what this entails. Would helicopters work in an emergency? Is the need to rescue miners from underground shafts, and if so, how would emergency crews get there faster from one of these alternate routes, or is there a better option? Where would they be coming from? Why is the one existing road not adequate for emergencies? How often is I-70 completely closed in this area for weather or accidents necessitating the need for an alternate route? Information answering these questions would be helpful in assessing whether there are other alternatives to meet this purpose, and whether this is a legitimate purpose.

## Cultural Impacts

The impacts to cultural resources appear to be major for all the alternatives except the no action alternative for this project. There appears to be no mitigation plan for preserving the rock art or any sites eligible for the National Register of Historic Places, and no obvious resolution with the Paiutes, who have expressed opposition to any project along Quitchupah Creek because human activity could impact the sacredness of the canyon. We suggest that if any of the build alternatives are considered, a mitigation plan needs to be developed far in advance for discussion so that all parties can consider the costs and time involved in mitigating for the cultural impacts of this project.

### Water Quality

Downstream of the project area and upstream of its confluence with Ivie Creek, Quitchupah Creek is listed on Utah's 303(d) list as a total dissolved solids (TDS) limited stream segment. It appears quite likely that Alternatives A and B would contribute to the water quality

2

## Response 397-3 cont.

Savings to SUFCO relate directly to long-term economic resilience of Sevier County. Many environmental protection measures (See Chapter 2 Alternatives) and mitigation measures (See resource sections in Chapter 3 of EIS) have been incorporated to reduce, minimize, and compensate for environmental impacts.

## Response 397-4

Other alternatives to reduce fuel consumption may include a slurry line or other means of transport such as available. However, due to the remote and rugged location of this mine, trucking coal to loadouts is the simplest method of transportation. The conveyor and slurry systems require water in quantities that are not available and also are not feasible due to engineering constraints of the terrain indicating they are not economically feasible.

The SUFCO Mine has a very high efficiency rating far out producing other coal mines on a per unit of labor basis, see Section 2.1 Alternative A - No Action. It is outside the scope of this project to analyze efficiency techniques to reduce energy usage at the mine itself in comparison with reducing fuel and time costs to deliver coal.

I-70 has never been closed for a 24 period of time during the last 30 years (Washburn, 2002); the interstate has been closed for about 1-4 hours at a time during white-out snow conditions. Accidents along I-70 generally close the highway for no more than four hours at a time (Washburn, 2002). An additional transportation route is not the purpose of this project but rather a shorter route that provides cost savings.

## Response 397-5

Alternative D avoids all known cultural resource sites near that route: therefore, there are no direct impacts to sites if that route is chosen. Due to the confines of the canyon, there are some cultural resource sites that could not be avoided along Alternatives B and C. Alternatives B and C have been rerouted in the area of the rock art in order to avoid direct impacts to it. Secondary impacts could still occur. The applicant-committed measures in Chapter 2 of the FEIS include processes to reduce or eliminate impacts to eligible cultural resources. Specific cultural mitigation is dependent on which alternative is chosen but may include avoidance, data recovery, intensive recordation/mapping, historic research, oral interviews, and/or public exhibits and education. After the ROD is issued, a site specific Mitigation Plan would be completed for the chosen alternative. The Mitigation Plan would have to be approved by the SHPO, the administering land agency, and consulting parties; a Memorandum of Agreement (MOA) would also be completed between the agencies and consulting parties. The tribes have been asked and accepted consulting party status. Consultation and resolution with the tribes is on-going. An ethnographic study was conducted with the Paiute Tribe (Stoffle 2004) and summarized in Section 3.13 of the EIS. The Quitchupah Creek canyon possesses sacred values for the Paiute Tribe.

## **OUITCHUPAH CREEK ROAD FEIS**

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problem downstream, and it is possible that Alternative D would also contribute, but less so. Although it is stated in section 3.4 that an improved road design will slightly decrease sedimentation and salinity into the drainages from the existing environment, there is no data provided in support of that conclusion. We suggest more information on how the new road design would improve the situation. The existing unpaved jeep trail likely contributes to the TDS problem, as well as natural erosion, drainage from the mine and riparian area impacts from livestock. All of these should be evaluated to see where improvements can be made.

In addition, there is no information in the DEIS on whether the road will be sanded or chemicals used during the winter months as normal winter maintenance. Sand and chemicals will contribute to the impairment of the stream. Unless the existing jeep trail is taken out, it will still contribute to the problem, and the DEIS does not specifically say that it will be taken out. If the jeep trail will be coming out, please explain whether ATVs or mountain bikes are likely to make spur trails on their own in the area, in which case the problem of erosion and sedimentation from jeep trails persists. Please address whether this is an issue, and whether the existing jeep trail will be closed under each of the build alternatives.

EPA feels strongly that any action taken in this area should not further contribute to the TDS problem, and in fact the State of Utah has as a goal restoring the beneficial uses of all impaired water bodies. We suggest that in addition to best management practices taken during construction, which are mentioned in the document and all look appropriate, mitigation be taken to improve the problem in the 303(d) listed stream segment. Actions such as monitoring to assess the mine's contribution to the problem and addressing that, addressing grazing and instream cattle watering in proximity of the stream, using best management practices to control erosion while building and maintaining the road, as well as removing the existing jeep trail and stabilizing soils, no matter which alternative is selected, should be addressed. Any permit required for stream realignment should require these improvements. We suggest that at a minimum, SUFCO conduct a sediment analysis to see how much the mine is contributing to the problem.

It is not clear from the discussion what the state of the water was in this area, prior to mining. It is stated that Quitchupah Creek receives a significant amount of flow from mine discharges, but nowhere does it say what the impacts from those discharges might be or whether this project will or will not exacerbate these impacts.

### Noise

The DEIS states that the increase in noise levels will affect wildlife, but there is no analysis of the impacts on wildlife, and no mitigation measures proposed for the impacts. This should be addressed in much greater detail.

### Air Quality

The air quality analysis appears insufficient and makes no mention of the effect the change

#### 3

## Response 397-6

The final EIS has been revised to include a more extensive description of the BMPs associated with the proposed road design, construction, and maintenance. Further, it has been revised to include details on applicant-committed and agency-committed measures, which are intended to help minimize sediment/salinity impacts. Lastly, the EIS has incorporated an extensive monitoring plan which would ensure that chronic sedimentation/erosion sources associated with the road project are addressed, and that water quality goals are met. All of these measures combined would minimize the potential for increasing the amount of total dissolved solids in Quitchupah Creek above current levels, in spite of some localized areas of increased erosion due to increased areas of disturbance.

The final EIS has been revised to describe the potential impacts to Quitchupah Creek from using a sand/salt combination for winter deicing. These impacts would be minimized through the use of several specific BMPs, also included in the final EIS.

The final EIS has clarified the fact that under Alternatives B and C, most of the existing jeep road would be covered over by the new road alignment, or reclaimed. Very little of the existing road would remain, as shown in the EIS. Under Alternative D, most of the existing road would remain as is and subject to use, however the applicant has committed to installing and maintaining water bars on the existing road to provide a measure of runoff control.

As described in Section 3.3 of the EIS, the existing mine drainage from the SUFCO mine is permitted under the UPDES wastewater discharge program and is generally of better quality in regard to TDS that the receiving waters to which it discharges. The final EIS has an added discussion on this issue. Rehabilitating 303(d) waters is outside the scope of this proposal. BMPs, environmental protection measures, and mitigation will contribute to the overall improvement of the 303(d) sections of Quitchupah Creek.

#### Response 397-7

The impact analysis for noise and wildlife appears in the FEIS. See Response 411-5.

#### Response 397-8

There will be no air quality impacts under any of the build alternatives (See Section 3.1).

## **OUITCHUPAH CREEK ROAD FEIS**

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in air quality will have on wildlife in the vicinity of the new road. While it states that the net change in air emissions will decrease, it does not analyze effectively what the impact of the increase in air emissions in the vicinity of the action alternatives will be on wildlife and vegetation. The air emissions will increase over what there is today in the vicinity of the three action alternatives. In addition, since the project area is not that far from Class 1 areas (national parks), the air quality discussion should address visibility and haze issues in the area.

#### Cumulative Impacts

Information on the overall picture of the ecosystem in which this project is located would be helpful. A paragraph or two (not overloading the reader with detail) on what is happening to the Wasatch Plateau, and maybe the Colorado Plateau, and the Colorado River would be useful to put the impacts of this project in perspective. The impacts to resources from one small project may look insignificant, but when placed in the context of the region and other actions, the big picture clarifies what is happening to a resource. The overall impacts this project would have in the region is not something this document makes clear. In addition, assessment of the environmental impacts of a road in a largely undisturbed natural ecosystem should be done by placing it in the context of an ecosystem approach.

Although there are several mentions of cumulative impacts in the document, it does not appear that they have been analyzed sufficiently. We suggest that a list of past, present and future actions be included, and information on the temporal boundaries be discussed for each resource, and why the boundary was chosen. There is some information on the geographic boundaries in section 2.7, but no reason given for those boundaries. The section of the Quitchupah Creek watershed selected as the geographic boundary for addressing cumulative impacts might be fine, but the reasons for its selection should be explained. Why is that boundary sufficient, for example, for threatened and endangered species? A sufficient analysis may require looking at a species' entire habitat area. The cumulative impacts discussion on water resources should at least include the mine and its impacts, and start with whatever we know of the quality of the water before mining began here. The document should also discuss the cumulative impacts of hunting, particularly the impact in the future with increased access for hunters, as well as the impacts of grazing, the potential for future gas drilling in the area and coal bed methane, and the increased production of coal.

Indirect impacts also need to be documented, and separated from direct and cumulative impacts.

## Habitat Fragmentation

In general, the fragmentation of habitats caused by roads is often severe. Transportation routes can be described as "disturbance corridors" that disrupt the natural, more homogeneous landscape. These disturbances can include physical disruption to the continuous vegetative community; disruption to the structure and function of habitat; and impacts to resident wildlife

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## Response 397-9

A general description of land use on the Wasatch Plateau and Muddy Creek drainage of the Colorado River has been inserted in Section 2.8 of the FEIS. The boundaries of the cumulative effects area coincide with the rugged physical boundaries of the watershed which naturally limit human activities and their effects. These boundaries serve as a general guideline as specific cumulative effects are discussed by the natural and man-made limits unique to that resource. As indicated in Appendix D, the actions are fairly limited for the cumulative effects area, as there are a lack of agency or other development actions planned for the future. The cumulative analysis has been revised for each resource in the FEIS. The rationale for the cumulative effects analysis areas is explained in the specialist reports included in the project record.

#### Response 397-10

We have reviewed the EPA document on highway development and refer to it in the revisions of some of the sections in the FEIS to better reflect the barrier and fragmentation potential of the proposed road. The revision is in the context that due to the poor quality of soils in the project area and the sparseness of the vegetation most of the habitats would be classified as low quality. The revision discusses the effects of noise in confined sites, the frequency of truck traffic, the human activity, and the physical barrier the road may be in the ecosystem.

397-10

QUITCHUIF	AH CREEK ROAD FEIS	Public Comments & Responses
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397-10 cont	which must negotiate, tolerate and cope with the habitat barriers. Specifically, coal trucks coming down at 3-minute intervals on a paved road provide such a disturbance, and should be evaluated in this EIS. Although this is not a highway, a good reference document for this type of analysis is "Evaluation of Ecological Impacts from Highway Development," EPA document, April 1994 (enclosed).	
	<u>Fisheries</u>	
397-11	Given that the DEIS states that the aquatic community is under stress and that the macroinvertebrate community indicates the poor condition of the aquatic ecosystem of Quitchupah Creek (section 3.8), and information we have that a new species of insect was found in this drainage, we request that a complete, long-term (e.g., more than one sample) biological inventory be conducted in this area prior to any impact occurring. The studies should be designed and conducted by qualified biologists, experienced in the local ecological communities.	Response 397-11 Qualified biologists re-sampled Quitchupah Creek in 2002 for macroinvertebrates. On-going monitoring of macroinvertebrates is not part of the scope for this Project. There was little difference between previous sampling and sampling in 2000.
	The document should address whether the FishLake National Forest has a forest standard for aquatic habitat capability. Typically Forest standards require 60-75% of availability habitat capability be maintained. It would be helpful to know whether the road project plus cumulative actions would cause an excedence of available habitat capability.	See Section 3.7 Fisheries and Aquatic Resources in the FEIS. The aquatic insects captured at Station Quitch-04 are rare, but these are not new species. This project complies with the Fishlake National Forest LRMP standards for the management area and aquatic wildlife monitoring.
	Threatened and Endangered Species	
397-12	There is insufficient information to determine whether the biological assessment is adequate. For example, for the Wright Fishhook Cactus, the field survey was done in May, but we have no information on whether that is when the species flowers, making it easier to detect. For the Last Chance Townsendia, it is stated that flowering occurs in April and May, but the survey was done in June of 2000. Why? For the Mexican Spotted Owl, no information is given on why it is not "expected to occur" in the general vicinity of the project (and what does general vicinity mean?). We suggest that more information from the FWS Biological Assessment be placed in this document.	Response 397-12 The additional information in the BA is included in the FEIS that details the survey methods and results, and clarifies the status of Northern Spotted Owl in the project area. The information on MIS species is included in the Wildlife Technical Report. USFWS has concurred with the determinations found in the BA.
	<u>Visual Resources</u>	Tourid in the BA.
397-13	It appears that the aesthetic qualities of the canyon will be altered forever. We suggest more specific information on reclaiming acres that will be disturbed. Information on whether native species will be planted and the area returned to as natural a setting as possible would be advisable as mitigation for visual impacts.	Response 397-13 In Section 2.2, the reclamation plan is explained and two seed mixes are included, one for the higher elevations and one for the lower elevation saline soils. The seed mixes are agency specified and include native
	In addition, it appears that a significant amount of fill and blasting will occur for Alternative D, which was analyzed thoroughly in the attachment. It would be helpful to identify places where bridges or culverts might not be a better practice both from an ecological and an aesthetic viewpoint.	species. The acres to be reclaimed for each build alternative are included in this section of the FEIS.
	aesthetic viewpoint. 5	Some of the terrain along Alternative D, Water Hollow, is so dissected by ephemeral drainages that even with bridges, cut and fill would be needed. A few bridges have been proposed as wildlife mitigation on Alternative D, in consultation with DWR to determine the best locations.

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## Environmental Justice

It appears that many in the agricultural community in these counties may be affected by the additional cost of trucking livestock from areas they now graze, as well as the anticipated road collisions of livestock with vehicles. These impacts should be analyzed and quantified. Information on the ranching community and how it will be affected by this project should be included in this document.

## Consultation on 404

The DEIS states that 404 issues (wetlands, aquatic life and stream alteration) will be addressed later, once an alternative is selected. EPA recommends strongly that the 404 issues, particularly as they relate to impact avoidance through alignment modification, should be addressed prior to the ROD. There are many benefits to including information to support both the DEIS requirements and the CWA section 404 requirements in the same NEPA process in order to disclose all direct, indirect, and cumulative impacts to aquatic ecosystems, as well as to bring avoidance, minimization, and mitigation requirements (i.e., section 404 CWA requirements) early and consistently through the process. Should the USFS and BLM proceed with this project without the necessary information that the Corps and EPA require for full disclosure of wetlands impacts, the Corps may be faced with a decision to supplement the NEPA document which may result in additional costs and delays.

## **Mitigation**

Mitigation for this project is extremely sparse. Impacts from the action alternatives appear to be significant and mitigation may be appropriate for cultural, water quality, wetlands, wildlife and aesthetic/visual impacts, at a minimum.

### Connected Actions

There are several connected actions that should be discussed and evaluated in this DEIS. SR-10 has to be upgraded because of the increased coal traffic whether or not an action alternative is selected. It is a connected action, and should be discussed and evaluated in this DEIS. If our analysis is incorrect and it is not a connected action, it nonetheless should be discussed as a project in the cumulative impacts section. Widening bridges, repaving 20 miles of road and adding passing lanes are major actions that should be evaluated. In addition, any alternate jeep or ATV trails the USFS or BLM might put in to replace the jeep trail on Quitchupah Creek should be evaluated as either a connected action or in the cumulative effects section. It may be reasonably foreseeable that other ATV trails would materialize in the area, given increased public access to USFS and BLM lands.

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## Response 397-14

No low income or minority populations have been identified in the Project Area; there are no environmental justice impacts.

Approximately 1.5 miles of fenced cattle trail would be constructed along the western end of the proposed road, where topography constraints limit free trailing outside the road corridor (See Sections 2.2, 2.3, and 2.4 and Section 3.8). A few selected underpassess would be constructed so cattle could move within the allotments for grazing and watering as planned in Alternative C.

The fall drift of cattle down East Spring Canyon would allow the cattle to move down Convulsion Canyon to Quitchupah Creek or be gathered at the east boundary fence. Cattle drifting down Broad Hollow would enter a gathering facility located on the north side of Accord Lakes Road then be trailed down Convulsion Canyon utilizing the fenced cattle trail. The SUFCO Mine would provide water when cattle are present in the holding corrals.

## Response 397-15

The FEIS contains a full disclosure of impacts and mitigation for regulated waters. The mitigation will also be included as part of Chapter 2. The mitigation design for wetlands and riparian zones would meet of exceed a 3:1 replacement ratio and accommodate function and values needs as defined by the COE.

## Response 397-16

Applicant committed measures for the resources including cultural, water quality, wetlands, wildlife, and visual, is included as design features which have been added as part of Chapter 2. Specific cultural mitigation is dependant on which alternative is chosen but may include data recovery, intensive recordation/mapping, historic research, oral interviews, and/or public exhibits and education. The mitigation required would compensate, reduce, or eliminate impacts to eligible cultural resources. After the ROD is issued, a site specific Mitigation Plan would be completed for the chosen alternative.

## Response 397-17

The upgrade of SR-10 will occur because it is a substandard road and coal truck traffic will use it regardless of the alternative selected. The Alternative B, C, and D junctions with SR-10 and the needed modifications, such as additional lanes and bridge expansion, are discussed in the FEIS. There are no plans to include an ATV trail in Quitchupah Creek by either agency.

## Letter #411



## United States Department of the Interior

OFFICE OF THE SECRETARY Office of Environmental Policy and Compliance Denver Federal Center, Building 56, Room 1003 P.O. Box 25007 (D-108)

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Denver, Colorado

May 7, 2002

ER 02/261

Mary C. Erickson Forest Supervisor Fishlake National Forest 115 East 900 North Richfield, Utah 84701

Dear Ms. Erickson:

The Department of the Interior (DOI) has reviewed the Quitchupah Creek Road Draft Environmental Impact Statement (DEIS), and offers the following comments.

The document analyzes four alternatives:

- · Alternative A The No Action Alternative. Trucks would continue to travel the existing route via the Acord Lakes Road to I-70, then SR-10.
- Alternative B The Proposed Action. Quitchupah Creek Road would be realigned and 9.2 miles of an existing road/trail would be converted to a paved road. There would be a steep grade ascent on SR-10. Disturbance by the footprint of the road corridor would be 88.4 acres, 17.4 acres temporarily, and 45 acres permanently.
- · Alternative C Alternate Junction with SR-10 and Alternate Design. Disturbance by the footprint of the road corridor would be 104.8 acres. Five livestock/game underpasses approximately 20 feet wide and 70 feet long, plus 16.3 miles of fencing would be incorporated into the design along Quitchupah Creek. Two other underpasses would be added, one under the existing Acord Lake Road and a second at Broad Hollow to facilitate spring and fall trailing.
- · Alternative D Water Hollow Alignment. Disturbance by the footprint of the road corridor would be 155.4 acres. This Alternative would leave Quitchupah Creek road after 2.0 miles and follow an existing jeep trail across Water Hollow Benches and then Salteratus Benches. It would require 9 crossings of perennial and ephemeral drainages that are tributary to Quitchupah Creek.



## Letter #411

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Mary C. Erickson, Forest Supervisor

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### **General Comments:**

Consultation with the U.S. Fish and Wildlife Service (FWS) under section 7 of the Endangered Species Act (ESA) of 1973, 16 U.S.C. § 1536 has not been completed for this project, but is ongoing. We expect that this consultation will be completed prior to publication of the Final Environmental Impact Statement (FEIS) and the results of the consultation will be addressed in that document.

The analysis of impacts is somewhat general, which makes determination of significance difficult. The significance of impacts can only be determined through addition of context such as site-specific quantification of impacts and comparison of those impacts to conditions on a local, regional or national level. We believe that the analysis of habitat loss, road effects (direct mortality, habitat fragmentation, noise, long-term impacts), air and water quality, blasting disturbance, impacts to raptors, and cumulative effects from this proposal should be modified and expanded. Our concerns are presented in the following paragraphs.

#### Habitat Loss:

All the action alternatives would open extensive fish and wildlife habitat along the right-of-way and in the surrounding area to disturbance that is a marked departure from previous practice, and yet little mitigation is offered for this loss of habitat and habitat value. According to the document, between 45 and 54 acres of permanent disturbance to vegetation would occur from direct impacts (page 3-54, Irreversible or Irretrievable Commitment of Resources and Residual Adverse Impacts). Although 2.75 acres of 3.3 lost riparian vegetation would be restored in conjunction with Threatened and Endangered Species mitigation, there is no mitigation proposed for the remaining 0.55 acres. While riparian areas in Utah comprise only approximately 2% of the land, they provide essential habitat for approximately 70% of wildlife at some time in their life history, and any loss is significant. Additionally, we could find no mitigation offered for the loss of 60-70 acres of upland vegetation that the document states would not be reclaimed post-project. Depending on the alternative, approximately 73 acres of greasewood, 0.5 acre of Douglas-fir woodland, 25-44 acres of mountain brush, 1-85 acres of pinyon-juniper, or 23 acres of low shrub vegetation would be disturbed. The document does not specify the amount of reclamation by vegetation type. A significant loss of one vegetation type more than others may lead to a localized ecosystem shift and impacts to associated wildlife species. As noted in the document (page 3-56), the vegetation types within the project area provide habitats for many species of birds. Several neo-tropical migratory birds protected by the Migratory Bird Treaty Act (MBTA)(16 U.S.C. §703-712) and on the Partners in Flight Priority Species List may inhabit or migrate through the project area. Species utilizing pinyon-juniper include: gray vireo and Pinyon jay. Species which may utilize shrub habitats include: Virginia's warbler and sage sparrow. Therefore, we recommend that the FEIS: (1) specify how much of which vegetation type you will attempt to reclaim; (2) note what proportion of each vegetation type will be lost from the immediate system; and (3) develop mitigation for the loss of each type. Mitigation considerations include: restoration or replacement of lost habitat type to the extent practicable and where appropriate;

## Response 411-1

Consultation with the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act was completed. USFWS has concurred with the determinations found in the BA (Appendix G). The subspecies of the southwest willow flycatcher in the project area is not the subspecies listed on the T&E species list.

## Response 411-2

Applicant committed measures and mitigation measures would mitigate for the loss of wetlands and riparian zones. See Sections 2.2, 2.3, 2.4, and 3.5 in the FEIS for discussions on applicant committed measures and mitigation which include revegetation with native species. Applicant Committed measures include fencing of 4.7 miles of the riparian area to limit where livestock can water in the stream.

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## Letter #411

Mary C. Erickson, Forest Supervisor

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411-2 cont.

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restoration efforts will not prioritize habitat suitable for grazing at the cost of habitat for neotropical migratory birds; revegetation with native species to the extent practicable; a vigorous invasive weed program; and monitoring to determine efficacy of mitigation, with a commitment to redress insufficiencies.

A common error in the analysis of impacts to wildlife is the assumption that displaced wildlife will easily find forage, nesting and breeding habitat elsewhere. There is no analysis of: whether or not suitable alternative habitat is located within the range of displaced wildlife species; whether or not the habitat will already be occupied by competing individuals of its species or other species; if occupied, is the habitat capable of sustaining the increased numbers. It is just as likely that some or a significant portion of the displaced wildlife will suffer mortality or decreased reproductive ability.

## Road Effects:

The impact analysis is substantially confined to the footprint of the road. Indirect impacts are cursorily mentioned in the DEIS as including barriers to wildlife movement and mortality from road kills, but are not fully explored. The document states that this road will experience one coal truck per every three minutes, and that increased mortality from vehicle collisions would likely occur. The significance of this impact cannot be determined because the analysis does not include numerical estimates. We believe the frequency of vehicle traffic from the proposed use of coal trucks along with increased public use of the road would result in significant loss of wildlife to vehicle collisions. Numerous studies have demonstrated the relationships between road types, traffic densities, and corresponding levels of road-kill wildlife for various species. Effects of wildlife road-kill can extend far beyond the effects to individual wildlife, with serious consequences to the population level of many wildlife species (Evink et. al, 1996, 1998, 1999). The FEIS should address this concern.

Other significant indirect impacts such as loss of habitat value, habitat fragmentation, disturbance from increased traffic and noise, harm to bald eagles that may feed on dead animals along the road and long term impacts to species populations are alluded to, but not analyzed. This road would make the area within the Quitchupah drainage more accessible to the public, but little if any analysis is done on the impact of public access on fuels, fire occurrence, sanitation, wildlife, aquatic species etc. Also, the noise discussion mentions an effect to wildlife, but it does not carry the subject forward for more analysis. This is an especially crucial omission in the areas where the road passes between narrow canyon walls where noise effects will be magnified. Even short term impacts are not discussed with any detail in the DEIS, yet there is a body of literature which would allow some prediction of potential results of highway construction and operation. We offer some examples in the following paragraphs.

Findlay and Bourdages (unpubl. rep., 1998) speculate that the full effects of road construction on birds and herptiles may not be realized for decades. Generally, habitat fragmentation and barrier effects of linear corridors can reduce usable ranges of wide-ranging habitat generalists and create

## Response 411-3

EPA document on highway development has been reviewed and incorporated in Section 3.5 of the FEIS to better reflect the barrier and fragmentation potential of the proposed road. Due to the poor quality of soils in the project area and the sparseness of the vegetation, most of the habitats would be classified as low quality. Section 3.5 discusses the effects of noise in confined sites, the frequency of truck traffic, the human activity, and the physical barrier the road may be in the ecosystem.

## Response 411-4

Impacts to wildlife species from vehicle collisions are included in the FEIS. The relationship between the proposed road type and traffic densities on wildlife populations is evaluated in Chapter 3 of the FEIS. Mitigation includes the fencing of the road. Applicant committed measures include underpasses and/or bridges for wildlife movement.

## Response 411-5

See response 411-3.

Ambient or background noise levels along the proposed haul road and SR10 are typical for outdoor and rural locations. As stated in the DEIS, additional noise from construction and coal truck activity associated with the proposed action will impact area near the road. Noise levels of outdoor and rural areas of 35 and 56 dBA were measured in the Quitchupah Creek area and Emery Town, respectfully. Current noise levels in Emery Town would not increase as a result of the proposed road since the haul truck numbers and frequency would not increase.

Noise pollution=s effects on wildlife is not well studied, but recent research from the U.S. Air Force and U.S. Department of the Interior, relates given noise levels to the effects on certain types of animals. The most relevant published noise effects on animals are listed below:

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## Mary C. Erickson, Forest Supervisor

genetic isolation in populations of smaller, less mobile species (Harris 1988, Reh and Seiz 1990). The less mobile species tend to have specific habitat requirements and may derive all of their resource requirements from a single wetland or habitat type. Different classes of wildlife have varying needs to move between habitats. For instance, amphibian life cycles require migration between habitats with different ecological properties. Highways were shown to exhibit a significant barrier effect to populations of the common frog within 1.5-2.5 miles of the road (Reh and Seiz 1990) as well as to populations of rodents, arthropods, and beetles (Kozel and Fleharty 1979. Mader 1984, Mader et al. 1990).

The extent of the barrier effect may be determined to some extent by the right-of-way vegetation and its similarity or dissimilarity to the natural vegetation of the local area (Wilkins 1982). Habitat changes could encourage establishment of competitors or predators more adept at living in human-altered environments, such as starlings, brown-headed cowbirds, and raccoons (Harris 1988).

Studies have indicated that wildlife are disturbed over surprisingly long distances from rural roads and highway corridors. Disturbance to wildlife has generally been inferred from relative densities of a species or group of animals at varying distances from a road. For instance, Van der Zande et al. (1980) confirmed earlier conclusions of Veen (1973) and showed that lapwings and godwits were disturbed to distances up to 1.24 miles from a highway located in the Netherlands. Similarly, plant, bird, and herptile species richness was observed to diminish with increasing density of paved roads, out to a distance of again at least 1.24 miles from the road (Findlay and Houlahan 1996). Based on their statistical models, a 2m/ha increase in total paved road density was assumed to have the same impact on herptile and mammal species richness as the loss of 50% of the wetland proper. In forested habitats, road noise reduced bird population density and breeding success within 0.3 to 0.6 miles of roadways. Breeding dispersal patterns were indicative that roadside areas provided lower quality habitats (Reijnen and Foppen 1994, Foppen and Reijnen 1994, Reijnen et al. 1995). While highway right-of-ways can certainly create habitats for some species and consequently increase their densities adjacent to the road corridor (Adams and Geis 1983, Clark and Karr 1979), this potential benefit should be evaluated in context with indications that right-of-way corridors can also facilitate the movement of diseases, predators, exotic wildlife species, noxious weeds, and fire (Mann and Plummer 1995).

Thus, the DEIS does not adequately address potential indirect impacts of the highway as they relate to wildlife disturbance and subsequent potential effects to populations since the analysis is confined to a relatively narrow study corridor and does not provide context in terms of local and regional impacts. We recommend the FEIS address the potential indirect impacts and, depending on the level of impact, develop suitable mitigation.

### Cultural Resources:

Our first comment is regarding the eligibility status of both Convulsion Canyon and Quitchupah Creek for the National Register of Historic Places as Traditional Cultural Properties (TCP's).

### **Documented Sound Levels on Animals**

Noise Source Pronghorn	Noise Level 77 dBA	Subjective Description Escape and Running
Various Species	132 dBA	Anxiety-like behavior
Rats, rodents	105 dBA (continuous)	·
	95 dBA	Hearing loss; Suppressed thyroid activity
Mouse	110 dBA (intermittent noise) 105 dB	decreased in circulating eosinophils; adrenal activation
	(continuous)	longer time intervals between litters; miscarriages, lower weight gain

While none of these limited studies relate directly to the study area, pronghorn behavior with 77 dBA are directly affected by noise levels of that magnitude. Similar results can be assumed to occur for large game animals indigenous to the canyon area.

Noise levels will likely double 200 meters away, where haul truck noise is allowed to dissipate in all directions. An increase in these predicted levels would be experienced if noise is prohibited from dissipating such as having a canyon wall immediately to one side of the haul road. See section 3.5 of the FEIS.

#### Response 411-6a

Consultation with the Paiute, Hopi, and Ute tribes is on-going. The Paiute and Ute tribes accepted consulting party status and would participate in any agreement to resolve adverse effects to Native American Concerns and cultural resources. The Paiute tribe has claimed the area to be a sacred site. An ethnographic study was conducted (Stoffle et al. 2004) with the Paiute Tribe of Utah. No Traditional Cultural Properties (as defined in the NHPA) have been nominated in the Project Area but Quitchupah Creek canyon does contain values sacred to the Paiute Tribe (EO13007). See Section 3.13 of the FEIS for a summary of the findings of the ethnographic study.

## **OUITCHUPAH CREEK ROAD FEIS**

## Letter #411

411-6a cont.

411-6b

411-7

### Mary C. Erickson, Forest Supervisor

Has a formal determination of eligibility been made by the two agencies? Either way, we would encourage the Agencies to continue to consult with those Indian Tribes that attach religious or cultural significance to the subject locations.

We have had communications with the Ute Tribe, Paiute Indian Tribe of Utah, and the Hopi Tribe and they have expressed concerns regarding the construction of the Quitchupah Creek road project and public access to petroglyphs (i.e. rock art sites) and other significant archeological sites in the area. The three Tribes are concerned that the various cultural resources would be impacted and that an alternate route should be implemented that avoids Quitchupah Creek. This is also addressed in Chapter 3.14 Native American Religious Concerns as documented in the DEIS.

In all the alternatives, with the exception of the No Action alternative, it seems possible that a determination of adverse effect pursuant to 36 CFR 800.5 will be made by the Agency Official regarding Convulsion Canyon and Quitchupah Creek as TCP's. Should this situation arise, we would suggest that the Agencies invite the Tribes to be Consulting Parties to any agreement to resolve the effects to the historic properties. Such agreement might involve closing the haul road during certain times of the year to accommodate an Indian Tribe's ceremonial or religious activities. We also would suggest the agreement, in consultation with the appropriate Indian Tribes, contemplate complete removal and reclamation of the proposed road once hauling ceases.

As the Agencies proceed with evaluation of the proposed action, we also would encourage referral to Executive Orders 13175---Consultation and Coordination with Indian Tribal Governments (November 6, 2000), 13007---Indian Sacred Sites (May 24, 1996), and 12898—Environmental Justice (February 11, 1994) and Secretarial Order 3206 American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act (June 5, 1997).

We agree with the Tribes' concerns regarding the proposed action and recommend that the Agencies continue to consult with the Tribes to resolve any outstanding issues.

## Cumulative Effects:

The cumulative effects discussions of all the action alternatives are incomplete. They mention but do not account for impacts from the increased traffic due to proposed oil and coal bed methane exploration and development. Discussion of Alternative B fails to mention that a request for a replacement ATV trail parallel to road has been made, which if constructed could result in even more loss of habitat and disturbance of wildlife. The analysis should explain how additional traffic would affect wildlife as well as all other resources in the area.

The analysis should present all lost habitat in units of area, such as acres rather than by linear foot. The use of linear foot measure is especially limiting to the discussion of stream and riparian habitat that may be impacted by relocation of streams.

## Response 411-6a continued

The proposed Alternative B, Quitchupah Creek Road, and Alternative C, Alternate Junction, route near the rock art sites has been realigned and moved to the other side of the creek. This reroute would place the road about 300 feet away from the rock art panels and the creek would be a physical barrier between them, making it more difficult to access the petroglyphs. The new alignment would also avoid impacting known cultural sites located within the previous alignment.

The existing road that currently is routed between the creek and the panels would not be used for access. This would tend to limit access for casual visitors.

This modification to Alternatives B&C would preclude the direct impacts of a busy public road next to the rock art.

## Response 411-6b

Executive Orders 13175 --- Consultation and Coordination with Indian Tribal Governments (November 6, 2000) applies to developing federal regulations and is not applicable to the proposed road. 13007 --- Indian Sacred Sites (May 24, 1996) is part of the Native American Concerns analysis in Section 3.13. It was determined that no low-income or minority populations would be disproportionately impacted by the project (EO 12898 --- Environmental Justice (February 11, 1994)) as discussed in Section 3.15. The project area does not contain tribal lands nor is it subject to any treaty delineating rights or trust resources; therefore Secretarial Order 3206 American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act (June 5, 1997) is not applicable.

### Response 411-7

The cumulative effects discussion has been revised and expanded. Neither an ATV nor a cattle trail are proposed; therefore there will be no additional impacts due to a trail. There is a paucity of proposed future actions to provide information on additional impacts.

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411-9

411-10

411-11

Mary C. Erickson, Forest Supervisor

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## Maps

The Geology Map (Figure 3-1) and Soils Map (Figure 3-4) are inadequate. Neither provides the information needed to assess the geologic hazards inherent to this project. In addition, the random and non-standard scales of all the maps create confusion. The maps need to be of sufficient quality with standard scales in order to permit a reasonable scientific examination of the project.

#### Page-Specific Comments

Figure 1-2 does not include the No Action Alternative, giving the impression the decision has already been made. A footnote indicating that with No Action, none of the routes would be constructed should be added to the figure. Also, the scale of the map is not detailed enough to permit a careful comparison of the alternatives.

Page 1-10. Threatened. Endangered. and Sensitive Species (TES): This section is inconsistent with the TES discussion beginning on page 3-67. For example, page 1-10 mentions a potential for seven T/E species occurring in the project area, while page 3-67 discusses twelve T/E species as having potential of occurring in the area. The two sections need to agree.

Page 2-4, Alternatives Including the Proposed Action, Section Alternative A – No Action: An economic justification is included in the discussion of the No Action alternative and the eliminated alternatives (page 2-21, 2.5); however, there is no economic appraisal in the text for Alternatives A, B, and C. The construction and maintenance costs of the four alternatives presented in Table 2.6-1 Comparison of Alternatives (Page 2-23 – 2-29) are uncorroborated. For example, maintenance costs for SR-10 are considered high because of the presence of Mancos shale-derived soils and yet no equivalent analysis was prepared for the possible shale soils and subsoils under the newly constructed Quitchupah Creek Road.

Supporting information is needed that explains all the factors analyzed for construction costs (page 2-23) and maintenance costs (page 2-29) presented in Table 2.6-1. Of concern are the costs associated with the Best Management Practices Report (page 3-7, Mitigation and Monitoring) that had not been developed during this NEPA process, and therefore, the costs are not included in Table 2.6-1.

The costs for construction and road maintenance need to address shale soils (buckling, warping, slumping, and offsetting of the road), engineered stabilization of mass wasting (soil creep, slump, and landslides including the large mapped landslide), engineered stabilization and prevention of rock fall, and sediment-runoff and debris-flow maintenance in culverts and on roads. Construction costs for widening the bridge in Alternative B, if chosen, to International Building Code (ICC 2000) seismic standards should also be included.

## Response 411-8

The map scales were dictated by the format of the document and the limit on overall map size. The Geology Map is the only one available for the area at this time. This map has been removed from the EIS as there will be no impacts to geology (See Section 3.1). Further, the soils map was created by available NRCS field inventories data that was provided ahead of the scheduled release of the official survey. Currently, the official survey for that area has not been published and there is no better official information than what is in the FEIS.

## Response 411-9 and Response 411-10

Editorial changes have been made.

## **Response 411-11**

The following information was developed for the DEIS but was not included at the agencies request. This information is included in Section 3.15 Socioeconomics of the FEIS. Although costs change over time, the overall trends remain.

#### **Annual Haul Cost Savings** Year Eastern No. Of Alt A Alt B Alt C Alt D Markets Hauls savings savings savings savings per haul per haul per haul mmtpy per year per haul \$0.00 \$75.25 \$79.76 \$63.21 2001 2.0 52,632 \$0.00 \$3,960,558 \$4,197,283 \$4,016,927 2002 2.5 78,947 \$0.00 \$4,950,698 \$5,247,410 \$4,138,586 2003 5.5 144,737 \$0.00 \$10,891,459 \$11,544,223 \$9,148,825 or max.

- 1. 1.0 mmtpy to Savage Loadout + 1.0 mmtpy to Hunter Plant in 2001, 3.1 mmtpy in 2002, 4.5 mmtpy or maximum in 2003
- 2. Mmtpy divided by 38 ton standard haul load
- 3. 0 miles less travel x \$3.01/load/mile savings (based on industry cost of \$0.07/ton/mile) = \$0.00
- 4. 25.0 miles less travel loaded x \$3.01/load/mile = \$75.25 savings per load
- 5. 26.5 miles less travel loaded x \$3.01/load/mile = \$79.76 savings per load
- 6. 21.0 miles less travel loaded x 3.01/load/mile = 63.21 savings per load

The haul distance to Hunter Power Generating Plant from the SUFCO Mine is 62 miles, at a cost \$0.07/mile/ton the cost for hauling one ton is \$4.34(62 x \$0.07 = \$4.34). The average price for coal in 2001 is \$17.54 per ton (Utah Mining Association reports, 2001), so the \$4.34 hauling costs represents 25 percent of the value of a ton of coal in 2001. The proposed Quitchupah Creek Road would reduce the haul distance by 25 miles or by 40 percent, and the cost to haul one ton would be reduced by \$1.75 or 10 percent of the value of the ton of coal.

## 6-23

## Response 411-11 continued

The value of the proposed Quitchupah Creek Road to the SUFCO Mine is measured in the reduction in hauling costs and the reduced effort to haul coal. The 50+ miles less to travel means the round trip from the SUFCO Mine to the Hunter Generating Power Plant is reduced 40 percent, or from 124 miles round trip to 74 miles round trip. This would save about 75 minutes on the round trip. The cost to haul one ton of coal on the 62 mile loaded haul is 25 percent of the market value of a ton of coal in 2001. The 40 percent reduction in mileage would save 10 percent of the market value of a ton of coal, thus potentially increasing profits by 10 percent. The 10 percent savings for an annual haul of 2-4.5 mmtpy means a considerable cost advantage for the coal producer.

For Alternative C, the cost advantage would increase to 10.5 percent.

For Alternative D, the cost advantage would decrease to 8.4 percent.

The costs were supplied by Jones & DeMille Engineering, the engineering design firm for the project. They will be cited in the FEIS. See Chapter 2 of FEIS under *Borrow Material Areas* for design feature that negates the affects of building on shale-affected soils. SR-10 does not have this feature which is the reason it will require a re-design of the highway to make it suitable for transporting heavy loads.

The construction costs were supplied by Jones & DeMille Engineering. The maintenance costs were derived from the actual costs of maintaining the present coal transport road, the Acord Lakes Road. And will be included in the FEIS. Table 2.6-1 only includes cost to construct the proposed road and alternatives but the projected maintenance costs and BMP costs will be included in the FEIS.

The shale soils are not projected to cause a problem for the proposed road due to design features that negate the affects of these soils (Chapter 2). The construction costs include the stabilization and drainage control features. An economic analysis was not produced but estimated costs are on file at the agency offices.

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411-12

411-13a

411-13c

411-13b

Mary C. Erickson, Forest Supervisor

Page 2-12, Table 2.2-3: The DEIS indicates that proposed vegetative reclamation of disturbed areas will occur through the application of a seed mixtures and mulch. However, the DEIS also mentions, repeatedly, that a significant environmental feature of the proposed Alternative B route is that soils throughout much of the watershed are highly erodible (page 3-22, Section 3.4 Water Resources, Stream Channel Descriptions, paragraph 7), especially along the creek bed. Furthermore, the Quitchupah Creek site seems to be a former habitat for the southwest willow flycatcher (page 1-10, Section 1.6 Issues, Threatened, Endangered, and Sensitive Species).

There are adequate supplies of native grasses and forb species available for revegetation purposes. The proposed seed mix contains very few native species. Yellow sweet clover should be eliminated from the mix because it will serve to attract wildlife to the disturbed area. Crested wheatgrass and Luna pubescent wheatgrass should also be eliminated unless it can be shown that native species cannot be reestablished on the site.

We suggest that native willow (Salix, perhaps amygdaloides, caudata or exigua) be considered as part of the reclamation mix identified in table 2.2-3. The deep roots of willow will help to stabilize wetland and riparian zones along the creek, and the mature plants will provide potential nesting habitat for the remnant Federally listed southwest willow flycatcher population. Planting with willow saplings rather than seeds would facilitate plant maturation and provide some erosion protection for seeds sown as mentioned in tables 2.2-3 and 2.2-4.

Page 3-3, Topography, Geology, And Minerals: Faulting and fracturing are mentioned in the second paragraph on this page, but no seismic hazard evaluation is included in the DEIS. Figure 3-1, Geology Map, appears to show that the road will be crossing mapped faults and that mapped faults are in close proximity to the SR-10 bridge that will be widened. The FEIS should include an analysis of and mitigation plan for the impacts of these mapped faults on the proposed road and bridge. The bridge will be built on alluvium, and therefore, liquefaction hazards should also be examined. A seismic event can trigger landslides and other mass-wasting events and thus should be included in the landslide review (see below).

Page 3-4, Landslide Review: The analysis of mass wasting (landslides, soil creep, slumps, and mass movement) and rock fall is insufficient. Considerable construction activity, which includes extensive blasting and a proposed staging area (Appendix B; Quitchupah Creek Road Alignment Plan and Profile, Strip Map1), will take place at the toe of the mapped landslide, potentially endangering its stability. The statement, "this landslide appears to be inactive and poses no threat to the proposed haul road route," is not substantiated in the DEIS.

The alignment of the road, with the corresponding blasting, blading, and normal construction activities, through geologic strata that are prone to "slumping, soil creep, and rock fall" enhance the mass-wasting hazard, present and future, to this project. This hazard not only causes expensive long-term maintenance costs but also considerable safety concerns, especially to the increased traffic of recreationists that the new paved road will bring. A detailed study of the areas of mass wasting and rock fall and a comprehensive mitigation plan that includes engineered

## Response 411-12

Native species, in agency specified seed mixes, would be used in reseeding (Section 3.4). Willow plantings could be used adjacent to the creek where disturbance might occur due to stabilization of fill slopes or fill at crossings but willow plantings would not survive outside the riparian zone due to xeric conditions. The subspecies of southwest willow flycatcher in the Project Area is not the listed subspecies (See Section 3.7).

## Response 411-13a

The proposed Quitchupah Creek Road project and alternatives lie within a IIb seismic region (UBC, 1997) extending from the Arizona border with Mexico up to the Canadian Border. About 12 earthquake epicenters capable of damaging structures (greater than 5.0 on the Richter Scale) have occurred in this seismic region from 1884-2001 (UUSC, 2002). Earth quake activity in the near-future would probably be similar to those observed in the past 100 years. Additional information is provided in Section 2.5 of the FEIS.

## Response 411-13b

Liquefaction is a hazard whenever a structure is constructed on unconsolidated sedimentary deposits in an area that has the potential of seismic activity. The engineering design of the road will take into account that portions of this road and the SR-10 bridge will be built on these deposits.

The discussion in Section 3.1 of the FEIS clearly states that the landslide feature is not within the proposed road corridor and that the Acord Lakes Road intersects the toe of the mapped landslide feature. The Acord Lakes Road does not indicate movement or topple on the mapped landslide; thus, indicating some stability.

The maintenance costs from the Acord Lakes Road, which traverses similar terrain and formations, will provide an indication of relative maintenance costs for the proposed road. Many public and private roads and highways have been built on the Wasatch Plateau in similar geologic formations, and much experience has been gained from the construction and maintenance of these roads. See Appendix B for design features to deal with steep slopes and rock fall.

## Response 411-13c

The geologic formations in the project area are prone to the mass wasting processes of slumping, rockfall/topple, and soil creep. Engineered solutions will be designed and implemented to help stabilize the unstable areas and will be incorporated into the final design.

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411-13d	stabilization of these areas need to be included in the FEIS. An economic analysis of the mitigation plan and long-term road maintenance would also be helpful.	Response 411-13d An economic analysis was no
	Page 3-8. Air Quality: The analysis should be revised to indicate that there are potential impacts to fish and wildlife resources from vehicle exhaust. The potential impacts should then be	are on file at the agency offi
411-14	analyzed in Section 3.7, Wildlife Resources. This is of particular concern in the more confined reaches of Quitchupah Creek where dispersal of emissions may be restricted. There is evidence that sulfur dioxide (SO <sub>2</sub> ) and nitrogen compound (NOx) deposition from vehicles and other anthropogenic sources can have detrimental ecological consequences. These changes can include: localized acid rain effects, changes in the N-cycle, alteration of the C:N ration, shifts in structure of biological communities and alteration of the decomposition process and microbial activity (Lee 1998). The overall effect on fish and wildlife could include: localized and seasonal algal blooms in small pools and eddies resulting in hypoxia which could kill larval fish and amphibians; shift in algal community to higher proportion of cyanobacteria which could produce toxic blooms; localized loss of forage types or forage quality for grazers; and increased vulnerability of plants to stresses such as drought and disease.	Response 411-14 Climate in the study area sh (greater than 3.5 mph). The approximately 9 mph. Dispension of been documented in the occur on a regular basis in the is likely to occur even on call Sulfur dioxide and Nitrogen
411-15	Pages 3-28 through 3-33, Water Quality: The document asserts that culverts and drainage control associated with the project "would result in reductions in the amount of total dissolved solids within Quitchupah Creek" (See also p. xii). Other cited contributors to the sediment load in Quitchupah Creek include livestock grazing, instream cattle watering, and All-Terrain Vehicle (ATV) crossings, yet the document includes no estimation of the relative contribution of each factor. This makes it difficult to estimate the amount of reduction in TDS and its significance. In addition, livestock grazing and instream cattle watering are expected to continue, but the Cumulative Effects analysis does not address the question of what may occur regarding ATV use. We believe the analysis presented is insufficient to determine what benefits to water quality may accrue from the construction of a road along Quitchupah Creek. We recommend the FEIS expand the analysis accordingly. Any plans to go forward with construction in this area should include mitigation that would reduce sedimentation, including restrictions on livestock and ATV use of the creek and riparian area, particularly during restoration.	3.2-1 show total emissions travel. On a per mile basis the pounds/mile. To our knowle alterations in the C:N racommunities, and alteration activity are not documented not published emission factorent of the diesel fuel Comparing stationary interesting SO2, SO2 emissions are like rates.
411-16	<u>Page 3-30, Table 3.4-4</u> : No units of measure are listed for the columns titled Existing Road (Same as Alternative A), Alternative B, Alternative C, and Alternative D.	Response 411-15 The section has been revised (Group), and 401-2 (State).
11-17	Page 3-31, paragraph. 2, sentence 3: "However, as noted above, salinity greatly increases"  The word "greatly" should be defined and supported from either data that were collected by your agency or a reference to a report done by another source. Would the Thiros and Cordy, 1991 or Mayo and Associates, 1997 reference fit here with some numbers that define "greatly" (reference page 3-23)?	Response 411-16 Editorial changes have been
	Also in this sentence, "and any incremental additions to salinity loading would not necessarily be identifiable." This is probably arguable and, again, it would be best to support this statement with a reference from either your own data or data/interpretations from another source.	Response 411-17 The referenced sentence has conclusions. Also, please se

not prepared, however estimated mitigation costs fices.

shows measurable winds 75 percent of the time he average wind speed is documented to be persion of pollutants is not likely to be inhibited, sion conditions (i.e calm winds). Inversions have ne canyon study area. Drainage flows (winds) he canyon. Dispersion of combustion pollutants alm days, mainly during dawn and dusk hours.

en dioxide are gases. Emissions shown in Table from all haul trucks over the entire course of he emission rate for nitrogen dioxide is only 0.03 ledge, acid rain effects, changes in the N-cycle, ratio, and shifts in structure of biological n of the decomposition process and microbial I to occur at these levels of emissions. EPA has ctors from mobile diesel engines. The sulfur directly effects the rate of SO2 emissions. rnal combustion emission factors of NOx and tely to be one half to one third of NOx emission

ed. Please see Responses 397-5 (Federal), 400-3

n made.

s been expanded upon to provide support for the see Response 397-5.

QUITCHUFAI	H CREEK ROAD FEIS	Public Comments & Response
Letter #411		
	Mary C. Erickson, Forest Supervisor	
411-18	Page 3-34, Soils, Irreversible or Irretrievable Commitment of Resources and Residual Adverse Impacts, Page 3-50: The document states: the Proposed Action, Alt. B, would cross 600 feet of irrigated and 14,600 feet of non-irrigated Prime Farmland; Alt. C would cross 600 feet of irrigated Prime and Unique Farmland, but 10,400 feet of non-irrigated; and Alt. D would cross 2,300 feet of non-irrigated Prime and unique Farmland. It is important to remember that this is also wildlife habitat for small mammals, rodents and small birds which provide bio-diversity as well as a prey base for raptors. The soils section should make note of potential impacts of occupation of farmland on wildlife species, and the impacts should be analyzed in Section 3.7, Wildlife Resources.	Response 411-18  Big game have been observed utilizing the Prime and Unique farmland found on the eastern portion of the Alternative B alignment. This area would be minimally impacted during construction activities, only 1.4 acres out of approximately 150 acres of pasture (less than 1 percent).  Response 411-19
411-19	<u>Page 3-51, Vegetation and Wetlands</u> : There is no discussion of the riparian community. As a substantial portion of the proposal would lie in riparian areas, the document should discuss impacts to this crucial community. In addition, the FEIS should describe any mitigation for direct and indirect loss of riparian habitat along Quitchupah Creek.	The impact to riparian zone is discussed in Section 3.4. Fencing to exclude livestock on 4.7 miles of riparian corridor would improve the habitat. The impacts to wetlands is confined to filling; sedimentation and emissions are not a factor.
411-20	Although the DEIS states that "soils on many areas of this route are cryptogamic", no further mention is made of this soil resource, which is valuable for its soil moisture retention capabilities. The we suggest that the cryptogamic soil crusts at the project site be conserved and used where possible as innoculum where soils and vegetation will be reclaimed.	Response 411-20 Although cryptogamic soil crust has been observed in areas along the proposed route and alternatives, no information is available on their extent; the high soil erodibility and the high use by livestock minimizes formation of these crusts over much of the area. Further, the success of restoration of
	Information about the significance of cryptobiotic soils can be assessed from the USGS URL at www.biology.usgs, under Biological Resources Locations, Forest and Rangeland Ecosystem Science Center, Canyonlands Field Station Research Projects. Particular projects include:	crusts through salvage and innoculation is not well documented at this time and may not be warranted for the small areas affected by this project. However, the salvage and reuse of cryptogamic soils could be done at the
	Effects of Disturbance on Cryptobiotic Soil Crusts, and  Restoration of Cryptobiotic Soil Crusts	direction of the individual land managing agencies/private landowners responsible for the given sections of the project in which these soils may occur in sufficient quantities for salvage; that will be left up to the relevant
411-21	Page 3-53, Wetlands, Potential Impacts: Only the direct impact, loss of acreage, is mentioned. Other impacts to any remaining wetlands, e.g., runoff from increased traffic and road maintenance activities (especially de-icing) and particulate deposition from exhaust and braking, should be discussed and mitigation offered.	entities to determine.  Response 411-21  Wetlands present in the Quitchupah Creek area are currently subject to an
411-22	Pages 3-55 through 3-78, Wildlife, Fisheries, Threatened, Endangered and Sensitive Species: Blasting effects to fish and wildlife are not analyzed in the document. As the short-term impacts from blasting during crucial breeding periods can be significant, the FEIS should address this issue. Suitable monitoring and mitigation, including avoidance, should be developed in coordination with the FWS and Utah Division of Wildlife Resources (UDWR).	environment where dust, sediments, and salts are present. Further, road runoff would be controlled and managed much more extensively than present conditions. See Section 3.4.  Response 411-22
	We have serious concerns about the potential for impacts to the raptors that utilize the numerous nests (up to 13, 9 of which are golden eagle) cited in the DEIS, in all alternatives but the No Action alternative. There may also be significant interruptions to raptor breeding and	No construction activities or blasting would be allowed within 0.5 mile of any active golden eagle nests and seasonal restrictions would be imposed (See Section 3.5). Mitigation measures from the <i>Utah Field Guidelines for Raptor Protection from Human and Land Use Disturbances</i> (Romin and Muck, January 2002) have been included in the FEIS.

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411-22 cont.	reproductive success due to impacts from blasting. The DEIS says that buffer zones and seasonal construction restrictions would likely be required by UDWR. The FEIS should make a commitment to mitigation measures, including avoidance.  We recommend use of the *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances* (Romin and Muck, January 2002), which were developed in part to provide consistent application of raptor protection measures statewide and provide full compliance with environmental laws regarding raptor protection. Raptor surveys and mitigation measures are provided in the Raptor Guidelines as recommendations to ensure that proposed projects will avoid adverse impacts to raptors, including the peregrine falcon. Additionally, surveys and mitigation measures, or any modifications thereof, should be developed in consultation with the UDWR and the FWS. A commitment to employ the Guideline recommendations, including seasonal and spatial nest buffers should be included in the FEIS.  Long-term impacts from the operation of the road should also be addressed. As you are aware, raptors are protected under the authority of the Migratory Bird Treaty Act (MBTA)(16 U.S.C. § 703-712) which makes it unlawful to take, kill, or possess migratory birds, their parts, nests, or	
411-23 411-24	eggs. The Eagle Protection Act (16 U.S.C. § 668) provides additional protection for bald and golden eagles.  Page 3-56, Upland Game Birds: In the first sentence, change "are" to "have".  Page 3-57, Potential Impacts No Action - Alternative A: The last sentence in the paragraph could be improved to more clearly state that existing conditions would remain unchanged for the near future and that current uses would be expected to continue.	Response 411-23 Editorial change has been made.  Response 411-24
411-25	Page 3-58, Mammals, Big Game: Third Paragraph. The new road could cause habitat fragmentation, or a disruption of daily or annual travel or migration corridors. The analysis should explain how the direct loss of 45 acres of habitat would affect the deer and elk herds. There also could be additional indirect effects caused by the road, such as a reduction in habitat value in the area adjacent to the road.	Editorial change has been made.  Response 411-25  Analysis of habitat fragmentation, or disruption of daily or annual travel or migration corridors, is in the FEIS (Section 3.5). Information applicable to the Project from the Evaluation of Ecological Impacts from Highway
411-26	<ul> <li>Page 3-58, Fourth Paragraph: The current agency-specified seed mix will not reduce the attraction of big game to the right-of-way. Species such as alfalfa, yellow sweet clover, and crested wheatgrass, at particular times of the year, will serve to attract big game animals to the road side.</li> <li>Pages 3-58 and 3-59, Birds: Impacts to migratory birds need to be further analyzed relative to</li> </ul>	Development, EPA document, April, 1994 has been included in the FEIS.  Response 411-26  The area is utilized by big game for winter range up on Water Hollow and spring and summer range along Quitchupah Creek. It is true that the
411-27	the Migratory Bird Treaty Act and Executive Order 13186. How much habitat will be lost and in what habitat types? Will incidental take occur? The document states that construction activities would cause displacement of birds to similar adjacent areas and would likely have minor impacts to the displaced birds. We disagree that this is the only possible scenario. If the areas to which the birds are displaced are already occupied and they are unable to sustain the increased numbers, there may be noticeable reduction in bird populations in the canyons.	agency-specified seed mix would create an attraction for big game. The seed mixes would be specified by the agencies.  Response 411-27  Habitat types affected by the Project Alternatives have been addressed in the FEIS (Section 3.5). There is a potential for a reduction of migratory bird populations if the adjacent habitat cannot support the displaced bird species.

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	Mary C. Erickson, Forest Supervisor	
411-28	<u>Page 3-59, Amphibians</u> : The document fails to specify how much of the suitable amphibian habitat would be impacted. If a substantial percentage of suitable habitat is lost, population isolation from habitat fragmentation could result. The document also should address impacts on amphibians from runoff from all alternatives. The analysis should state whether the impacts would be temporary or permanent.	Response 411-28 There will be no loss of amphibian habitat due to mitigation of wetlands riparian zones, see Chapter 2 in FEIS.
411-29a	<u>Page 3-60, Mitigation and Monitoring</u> : The Section contains Mitigation procedures, but contains no Monitoring examples. Fencing may not necessarily be a mitigation measure for big game. Fencing may actually cause additional impacts to wildlife which also should be analyzed.	Response 411-29a  Monitoring will be implemented after completion of the Proposed Action Alternatives. Impacts of fencing of the roadway have been analyzed in FEIS.
411-29b	<u>Page 3-69, Threatened, Endangered and Candidate Wildlife</u> : The first sentence should be corrected to read "Three federally-listed wildlife species and one candidate wildlife species were identified by the FWS as having the potential to occur within the project area".	Response 411-29b The sentence on Page 3-69of the DEIS has been corrected in the FEIS
411-29c	<u>Page 3-69, Bald Eagle (Haliaeetus leucocephalus)</u> : The analysis should note that increased road kills along the new road may attract bald eagles to the site, increasing the chances of bald eagle/vehicle collisions.	Response 411-29c The FEIS has been amended to include the increased possibility of
411-29d	Page 3-69, Mexican Spotted Owl (MSO, Strix occidentalis lucida): There needs to be a discussion as to why surveys for MSO's were deemed unnecessary. It is not sufficient simply to state that one was deemed not to be necessary.	eagle/vehicle collisions with the increase in roadkill. Mitigation measuch as removal of big game road kills has been included in the FEIS  Response 411-29d
411-30a	<u>Page 3-70, Southwestern Willow Flycatcher (Empidonax traillii extimus)</u> : Second Paragraph, Second sentence from end of paragraph. Change to "presumably it was a breeding bird in a territory". Were additional surveys conducted in 2001?	Surveys for the Mexican spotted owl were initiated in the Project Ar the spring of 2002. No Mexican spotted owls were observed or I during surveys. Results of the surveys have been included in Chapter the FEIS.
	The discussion should be amended to include the most current information available for southwestern willow flycatcher distribution, including the following:	
	<ul> <li>The willow flycatcher subspecies inhabiting the riparian corridor in the project proximity is located at the extreme northern boundary of E.t. extimus, but within the known range of E.t. adastus, (an unlisted species). Experts suggest that the central part of the State of Utah is more likely an area of intergradation between E.t. extimus and E.t. adastus (Behle, 1985).</li> </ul>	Response 411-30a  A more thorough discussion of willow flycatcher subspecies distributed was included in the Biological Assessment for the Project. The USFWS determined that the subspecies found in the project area is not the I subspecies. This information has been included in the FEIS.
	<ul> <li>Genetic analysis to date has shown that the willow flycatcher population in central Utah does not have the genetic markers of E.t. extimus and is more closely related to E.t. adastus (Paxton, 2000).</li> </ul>	
	<ul> <li>Analysis of willow flycatcher vocalizations in central Utah suggest association with E.t. adastus (Sedgewick, 2001).</li> </ul>	

QUITCHUPAI	H CREEK ROAD FEIS	Public Comments & Responses
Letter #411		
	Mary C. Erickson, Forest Supervisor	Response 411-30b Suitable habitat for the yellow-billed cuckoo is extremely limited within the
411-30b	<u>Page 3-70, Yellow-billed cuckoo</u> : Is there cuckoo habitat in the project area or not? The statements that habitat is "essentially nonexistent" and "extremely limited" in the area indicate that some habitat must exist and that the necessary inventories must be conducted.	Project Area. There is a narrow riparian corridor consisting of cottonwood trees in the eastern portion of the Alternative B that is bordered by sagebrush/juniper and agricultural fields. This habitat would not be impacted by the proposed road.
411-30c	<u>Page 3-72</u> , <u>Spotted Bat</u> : Second Paragraph. Is there suitable habitat for spotted bats within the project area? If so, would impacts be anticipated?	Response 411-30 c
411-31	<u>Page 3-73</u> , <u>Bicknell Milkvetch</u> and <u>Page 3-74</u> , <u>Basalt Milkvetch</u> : This document should analyze the potential for impact to these species. It is not sufficient to simply state that surveys will be conducted prior to construction. What actions would be taken if the species are found and construction would severely impact them? Surveys need to be conducted in time to provide an appropriate analysis.	Suitable foraging and roosting habitat for spotted bats does exist within the Project Area. No surveys for this species were requested by the Forest Service. Impacts to foraging habitat (by Alternative) for sensitive bat species have been addressed within the Wildlife Resources, Section 3.5 of the FEIS.
411-32	Page 3-74, UDWR Utah Sensitive Species List: We suggest this heading be eliminated and the discussion following included on the previous pages under the Sensitive Species discussion. These species should also be added to Table 3.9-2., QUITCHUPAH CREEK ROAD DEIS. There is no mention of the Utah BLM Sensitive Animal Species List as identified in BLM Instruction Memorandum No. UT 2001-081. This is the official Utah BLM sensitive animal species list and should be cited in the FEIS.	Response 411-31 See Section 3.7 Threatened, Endangered, and Sensitive Species. Preconstruction surveys for these two sensitive species would be conducted to record locations in the selected road construction corridor and specific mitigation measures made to protect these plants should they be present.
411-33	Page 3-105: The Numic Expansion is at this point a theory, and not a fact. Many archaeologists believe that the Numic peoples (which would have included ancestors of current Ute, Paiute, Shoshone, Goshute and Comanche) advanced from a point of origin in the southwestern Great Basin, possibly southeastern California after 1000 AD and moved north and east as populations grew. If true, they would have arrived in Utah around 1300 AD, which is consistent with some archaeological data. But there are other theories that dispute the concept of a Numic Expansion, and many of the tribes in question state that their oral histories are as valid or more valid than archaeological theory. They have been here for thousands of years. A few words should be added to indicate that current theories "suggest" that these emigrations/immigrations took place.	Response 411-32 Editorial changes have been made.  Response 411-33 Editorial changes have been made.
	<u>Page 3-106</u> : The final rulemaking for the latest regulations at 36 CFR 800 were published in the Federal Register on December 12, 2000, and made effective January 11, 2001 (see F.R. 77725-77739). The document referenced here was most likely the proposed draft rule.	
	Page 3-107 and 108: On page 3-107, Alternative A is described as the No Action Alternative, with no impacts. Alternative B is described as the action likely to impact resources of concern to tribes. On page 3-108, however, the text says that impacts of Alternatives C and D follow from Alternative A. This is either a typographical error, or reflects a change in order of the alternatives that was not properly edited. Both Alternatives C and D should reference the impacts to sacred values, etc., from Alternative B rather than A.	Response 411-34 There is no Quitchupah Canyon, the correct USGS designated name is
411-34	<u>Figure 3-1, Geology Map</u> : The Geology Map is difficult to read and does not provide the information needed to assess the geologic hazards inherent to this project. The various surficial units are poorly differentiated by the various shades of light green; the symbols for the geologic	Quitchupah Creek and will be corrected in text. The impact to or from certain geologic formations is not considered a significant impact due to design of proposed road so cross-sections of the geologic formations throughout the project area would seem redundant.
		The Geology Map used in the DEIS is the only one available for the area. This map is not included in the FEIS.

Letter		
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411-34 cont.

411-35

#### Mary C. Erickson, Forest Supervisor

units, especially in the canyon where the road will be built, are too small to read and often obscured by the topographic lines; geologic contacts are poorly or incorrectly drawn; and the line symbols in the legend are the same for syncline, anticline, monocline, geologic unit contact and fault, most of which do not relate to the line symbols drawn on the map. The cross section example (section 22) needs to be for a section that is actually on the map. The various canyons and washes are not adequately labeled, and Quitchupah Canyon, which is discussed in the text, does not appear on any of the maps. Because of the random and repeated scale changes from map to map in the DEIS, comparisons among the maps to assess the surficial relations of each map's subject are limited.

In addition, geologic cross sections from the top of the canyon to depth for 1) the beginning of the road and 2) end of the road in Convulsion Canyon would be helpful to assess the geologic problems and hazards that will be associated with this project.

Figure 3-4, Soils Map: The soils map is inadequate for use in soil analysis related to the road. The northern section of the map is not included so that those sections cannot be evaluated. These north sections relate to geologic hazards associated with the north canyon walls. The soils section in the text (3.5 SOILS, page 3-34 - 3-50) and the tables of soil types do not include descriptions of many of the important soils, such as soil types 57, 58, 73, 77, all of which are associated with the mapped landslide area. Also, it is difficult to relate the salinity values of the soils shown on the map to the underlying geologic shale units, Mansuk Shale and Blue Gate Shale, for sections of the proposed road. The Mansuk Shale and Blue Gate Shale are members of the Mancos Shale Formation that is repeatedly mentioned in the text as causing construction, maintenance, and salinity problems in this area.

Thank you for this opportunity to comment. We look forward to future cooperation in the analysis and decision making process for the proposed road.

Sincerely,

Robert F. Stewart

Regional Environmental Officer

Enclosure - Literature Referenced

#### Response 411-34 cont.

13

A sizeable amount of research went into the creation of the maps in the EIS. The maps that are in the EIS are the best and in some instances are the only available maps that could be obtained.

#### Response 411-35

The soils descriptions given in the EIS are for areas directly affected by the proposed project. The landslide area and the related soils noted in the comment are outside of this area, and the landslide potential is described in the geology section of the EIS and does not need to be repeated in the soils section. Further, the USFS soil survey has not been finalized and detailed soils descriptions are not available beyond those developed through taxonomic classifications.

Parent materials for the soils mapped on the non-forest lands are given in the Soils Technical Report for this project, which is referenced in the EIS soils section.

The landslide feature is not considered a threat to the road so the soils outside the road corridor are not included because no impacts are associated with these soils. Soils 57,58,73, and 77 are not within the road corridor and will not be impacted by the road construction.

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# STATE AGENCY LETTERS

# Letters Included:

Letter #4 - Utah Division of Oil, Gas and Mining

Letter #101 - Utah State Representative, Bradley T. Johnson

Letter #105 - Utah Department of Transportation

Letter #302 - Utah State Senate, Leonard M. Blackham

Letter #390 - State of Utah Office of the Governor, Michael O. Leavitt

Letter #401 - Utah Division of Wildlife Resources

4-1



State of Utah
DEPARTMENT OF NATURAL RESOURCE
DIVISION OF OIL, GAS AND MINING

Michael O, Leavitt Governor Kathleen Clarke Executive Director Lowell P, Braxton Division Director 1 801-538-5340 801-538-5340 801-538-532 (TDD)

DIVISION OF OIL, GAS AND MININ 1594 West North Temple, Suite 1210 PO Box 145801 Sall Lake City, Utah 84114-5801 801-588-5804 801-588-5940 (Fax)

January 22, 2002

Linda L. Jackson, Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, Utah 84701

Kay Erickson, Realty Specialist Bureau of Land Management Richfield Field Office 150 East 900 North Richfield, Utah 84701

RE: Comments on Quitchupah Creek Road, Draft Environmental Impact Statement,

Dear Ms. Jackson and Mr. Erickson:

The Division of Oil, Gas, and Mining received a copy of the Quitchupah Creek Road Draft Environmental Impact Statement on December 7, 2001. We offer the following comment:

The Division of Oil, Gas and Mining is the agency responsible for permitting coal mining and reclamation operations within the State of Utah. Such permitting actions may or may not include public roads or portions of public roads. In order to make such permitting decisions concerning roads or portions of roads, OGM analyzes written information and data. In reading the DEIS, it has been noted that in a number of places throughout the document, the terms "coal hauling route" or "coal haul traffic" are used (Abstract, Executive Summary p. vii, 1-1, 1-13). Since 'coal haulage' is a term often associated with on-site mining activities, the use of this type of terminology has the potential for confusing the reader and may make it difficult to distinguish where mining activities end and public transportation begins. Thus, OGM encourages the writers of this EIS to carefully evaluate its current descriptions of the proposed activities for the road and to consider the use of language or descriptions in the final EIS that 1) is as precise as possible to the exact activities, i.e., the transportation of coal, and 2) that includes descriptions of <u>all</u> proposed activities and uses of the road.

Thank you for the opportunity to comment on this project. Please call if you have questions.

Sincerely

Lowell P. Braston

Director

vs P:\GROUPS\MINES\WP\AMAW\DEIScomments2.doc



### Response 4-1

Editorial comments addressed. The terminology was changed to "coal transport route" and "coal truck traffic."

101-1

101-2

# HOUSE OF REPRESENTATIVES STATE OF UTAH

#### REPRESENTATIVE BRADLEY T. JOHNSON

70TH DISTRICT
(EMERY, SANPETE AND SEVIER COUNTIES)
30 NORTH MAIN 180X 122
AURORA, UTAN 24620
(OME (435) 529-3227 / OFFICE (435) 529-7443
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STANDING COMMITTEES: NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT. CHAIR; EDUCATH APPROPRIATIONS: NATURAL RESOURCES; ETHICS

January 30, 2002

Ms. Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, Utah 84701

Dear Ms. Jackson

I would like to voice my support for the Water Hollow Road Route (Alternative D) of the Quitchupah Creek Road Proposal. Based on my understanding of the project, the Water Hollow Road route (Alternative D) is the option with the least conflict with local private landowners and important cultural resources.

As a representative of this area in the Utah State Legislature, I would like to commend the Sevier County Special Services District and the SUFCO Mine for this innovative public/private partnership. The Special Services District would be responsible for the construction of the road, and the trucks that haul coal would be assessed a toll to pay for and maintain the road. This partnership has resulted in a project that makes both economic and environmental sense.

From a legislative standpoint, a privately funded road reduces the demand for State highway transportation dollars, and in this case eliminates coal truck traffic on about 50 miles (roundtrip) of SR-10 and I-70. The Water Hollow Creek Road option has also been designed to avoid the Native American cultural sites in the area.

It is important to remember that coal contracts have been signed, and that coal will be delivered via the I-70 and SR-10 route, or by use of the Water Hollow Creek Road. With the environmental aspects of this project having been minimized, it makes sense to use this new route as the primary coal haulage route.

Thank you for the opportunity to comment on the Quitchupah Creek Road proposal.

Sincerely,

Bradley T. Johnson 70th District

(101)

### Response 101-1

Comments noted. Alternative D is the only alignment that does not directly impact any known cultural resource sites.

### Response 101-2

The proposed road, which would be a public highway, would be 100 percent construction and maintenance funded by tolls on the transport of coal by the SUFCO Mine during the life of the mine. After closure of the mine, maintenance of the road would be funded by public transportation funds (i.e. state, county).

105-1

105-2



# State of Utah DEPARTMENT OF TRANSPORTATION

Kleston H. Laws, District Engineer Price District 940 South Carbon Avenue Price, UT 84501-4368 435-636-1470 Fax: 435-636-1471 www.dot.state.ut.us Commissi Gine. Be Chairm Hal M. Cly Stephen M. Bod Jan C. We Beyen K. Wile

Bureau of Land Management SRRA

February 4, 2002

Kay Erickson Realty Specialist Bureau of Land Management Richfield Field Office 150 East 900 North Richfield, Utah 84701

Dear Mr. Erickson,

The Price District Office of the Utah Department of Transportation has reviewed the DEIS for the Quitchupah Creek Road. We support Alternative C for the following reasons:

- Meets the purpose and need.
- Is the shortest route for coal hauling, employees, and suppliers, thus providing the
  greatest fuel savings and the least vehicle emissions.
- Provides the greatest protection to livestock. We have found livestock collisions to be of great concern to local citizens and the highway users.
- Avoids the steep grade up Quitchupah Hill that slows northbound trucks and interferes
  with regular traffic movement. It avoids the frustration of motorists forced to follow real
  slow loaded trucks up the hill.
- Eliminates the need to widen or reconstruct the SR-10 bridge over Quitchupah Creek that would be required with alternative B.
- Avoids the landslide on Quitchupah Hill. We believe the weight and vibration of the loads could accelerate the movement of that slide.

We appreciate the opportunity to respond to the DEIS and would like to continue to be included in further discussions regarding this project.

Sincerely,

Kleston H. Laws Price District Engineer

Kluton H Sans

(105)

# Response 105-1

Under Alternatives A and D the coal truck traffic would slow northbound traffic on Quitchupah Hill because there are presently no passing lanes on this steep grade. Under Alternative B, additional lanes, including an acceleration lane up Quitchupah Hill, would be constructed at the junction with SR-10. Under Alternative C the junction with SR-10 would be north of Quitchupah Hill so coal trucks would not be a hindrance to northbound traffic. See Section 3.14 Transportation.

#### Response 105-2

Liquefaction is a hazard whenever a structure is constructed on unconsolidated sedimentary deposits in an area that has the potential of seismic activity. The engineering design of the road will have to take into account that portions of this road and the SR-10 bridge will be built on these deposits.

There is no mapped landslide feature on Quitchupah Hill (Harty 1993). The known landslide feature is located on Acord Lakes Road. The discussion on page 3-4 of the DEIS clearly states that the landslide feature is not within the proposed road corridor and that the Acord Lakes Road intersects the toe of the mapped landslide feature. The Acord Lakes Road does not indicate movement or topple on the mapped landslide; thus indicating some stability.

### Letter UTAH STATE SENATE #302 319 STATE CAPITOL · SALT LAKE CITY, UTAH 84114 (801) 538-1035 · FAX (801) 538-1414 SENATOR LEONARD M. BLACKHAM TWENTY-EIGHTH DISTRICT JUAB, SANPETE, SEVIER, MILLARD, PIUTE, WAYNE, BEAVER and GARFIELD COUNTIES FISHLAKE NATIONAL FOREST RECEIVED February 7, 2002 FEB 1 1 2002 AO\_ Ms. Linda L. Jackson END. B&F\_ Public Affairs Officer GIS\_ PAO HR\_ Fishlake National Forest RANGE 115 East 900 North REC\_ 15 Richfield, UT 84701 TIMBER PURCH. WISHD RES. Dear Ms. Jackson: ENTRP\_ TOOM. COPIES SENT TO ..... Thank you for the opportunity to provide comment on the Outchurah Creek Road Environmental Impact Statement. As a Utah State Senator that represents this area, I support the unique public/private partnership that has developed to address the efficient, safe and environmentally responsible delivery of coal in this region. In particular, I would like to support Alternative D of the Quitchupah Creek Road EIS, which is the Water Hollow Road Route option. I base this recommendation on the fact that it has the support of the only private landowner in this Response 302-1 area, and also an important Native American cultural site. Comments noted. 302-1 It is important to keep in mind that low-sulfur coal from the SUFCO Mine will be delivered to the Hunter Power Plant, with or without the construction of the Quitch Creek Road. However, if this road project is not constructed, the trucks will travel over approximately 50 miles of I-70 And SR-10 (round trip). By approving the Hollow Creek Road option, construction and maintenance costs will be born by a toll assessed on the trucks hauling the coal. With any private land ownership and cultural resource issues having been mitigated under the Water Hollow Creek Road option, this project simply makes economic and environmental sense. Thank you for the opportunity to comment on this proposal. Sincerely, Geord m Black Leonard M. Blackham Senator

## Letter #390 STATE OF UTAH MICHAEL O. LEAVITT OFFICE OF THE GOVERNOR FISHLAKE NATIONAL FOREST RECEIVED GOVERNOR SALT LAKE CITY 84114-0601 FEB 2 7 2002 CND. B&F\_ February 22, 2002 GI3\_ RANGE Ms. Linda Jackson REC\_ Public Affairs Officer I F TIMBER. PURCH. Fishlake National Forest WISHD\_ RES. 115 East 900 North Richfield, Utah 84701 TT TO\_ Dear Ms. Jackson, The State of Utah would like to go on record in support of the Quitchupah Creek Road proposal, Alternative D (Water Hollow Road) route. This alternative has the support of Castle Valley Ranches, which is the sole private land owner along the route. It has the support of the locally elected officials in the legislature and the county commissioners. It also avoids the cultural resources that are found in that area. 390-1 Response 390-1 This alternative will reduce truck traffic on I-70 and SR-10 by approximately 50 miles per round Comments noted. trip. The road will be built and maintained through tolls assessed to the large coal haulage trucks. The SUFCO mine that will be the main user of the road, hauling coal from the mine to the Hunter Power Plant, is totally supportive of this solution. This a very creative and innovative solution by a public/private partnership wherein all parties are to be congratulated and supported. I enthusiastically lend my support to this effort. Please feel free to contact me if additional information is desired.

401-1

401-2



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE RESOURCES

Kathleen Clarke John Kimball Southeastern Region 475 West Price River Drive, Suite C Price. Utah 84501-2860 435-637-7361 (Fax)

Feb. 26, 2002

Linda L. Jackson Fishlake National Forest 115 East 900 North Richfield, Utah 84701

Quitchupah Creek Road Draft Environmental Impact Statement

Dear Ms. Jackson:

After careful review of the Quitchupah Creek Road Draft Environmental Impact Statement (DEIS), Utah Division of Wildlife Resources (UDWR) has many concerns with this document's assessment of wildlife impacts and proposed mitigation. With so much at stake (loss of wildlife and wildlife habitat, impacts to the fishery, water quality, wetlands and riparian, wildlife-vehicle collisions, to name just a few), we request careful consideration of the need for this project.

We are concerned about the potential impacts to fish and wildlife, their habitat, and lost opportunities for their harvest and enjoyment by the public. Each of the proposed routes dissect deer and elk summer and winter ranges and increase the chances for deer/elk vehicle collisions. This results in decreased animal abundance and escalates liability discourse. Demolition of distinctive wetlands and riparian may be the most insidious result of this project, and wasn't satisfactorily addressed in the document.

An issue raised during initial scoping was that "water quality of the stream may be impacted due to disturbance of erosive soils introducing sediments into the creek" (pg ix). Comments stated that "changes may occur to the water quality in Quitchupah Creek and other creeks within the project area due to rerouting the headwaters and eliminating some of the stream-side hydric fringe and wetlands. Water quality may also diminish due to increased sedimentation from disturbed erosive soil sections. The increase in sedimentation in these creeks may increase salinity due to the highly saline soils in the Quitchupah Creek drainage. The increase in salinity may affect the salinity management of the Colorado River system" (pg 1-9). The DEIS responds to these scoping comments by stating that "improvements in roadway design for the Quitchupah Creek Road, specifically improvements in drainage and runoff control, would result in reductions in the amount of total dissolved solids within Quitchupah Creek" (pg xii). The DEIS goes on to state that "salinity in the creek would decrease slightly due to less sedimentation, positively





### Response 401-1

The impact analysis for wildlife has been revised in the FEIS with expanded detail on impacts to big game. The mitigation design for wetlands and riparian zones would replace functions and values of these areas, and wetlands would have at least a 3:1 area replacement ratio.

#### Response 401-2

Please see responses to 397-5 (EPA) and 400-3 (Castle Valley Ranches). In addition, the quoted sentences on page xii have been rewritten.

The reclaimed areas will be protected either by monitoring, fencing, or by regulating grazing.

Letter
#401

401-2 cont.

401-3

affecting the 303d category for the lower creek and discharges to the Colorado River" (pg xii). The DEIS notes that Quitchupah Creek downstream of the project area is listed on the State of Utah's 303d list as an impaired water due to high levels of total dissolved solids (pg 3-20).

At first glance, assertions of improved water quality appear to be accurate because the new road would have fewer stream crossings than the existing road, and culvert crossings would replace ford crossings. However, after a close inspection of the DEIS we disagree and believe that water quality would be negatively impacted by selecting any of the action alternatives. The reason the project will decrease water quality as planned is that seeding/revegetation of disturbed and reclaimed areas will not be successful without strict protection from livestock impacts. There are apparently no plans to provide the fencing necessary for suitable revegetation of disturbed, erosive soils. Trailing of livestock along the stream would still be allowed. The DEIS notes that a substantial proportion of the route of the new road under Alternatives B and C would be in erodible soils adjacent to the stream, and admits that "grazing [and] instream cattle watering...are...potential sources of sediment...[which] must also be considered as sources of TDS" (pg 3-23).

The possibility of water quality impacts as a result of truck accidents and resulting chemical spills is also a concern. Such accidents have resulted in fish kills in other streams. The likelihood of an accident causing such an event along the new road is high because of the proximity of the stream along most of the road's length. The fish species present in Quitchupah Creek, particularly valuable ones on the state sensitive species list, need protection from any toxic chemicals which could enter the stream.

Another issue raised during scoping was that "wetlands associated with upper Quitchupah Creek could be filled during road construction" (pg ix). The DEIS notes that there would be "impacts to jurisdictional wetlands [and] riparian zones" (pg xii). An issue carried forward in the analysis is that "some wetlands associated with Quitchupah Creek would be filled during construction of the road. The filled wetlands would not function to filter sediments or absorb flood flows for the creek flow regime. Most of the proposed filled wetlands are at the head of these creeks where they presently function as a sediment filter to preserve the water quality of the creek and as flood basins to absorb excess waters and regulate the flows in the channel. The filled wetlands would need to be mitigated by constructing wetlands at other sites along the creek" (pg 1-9). Table 2.6-1 notes that one wetland totaling 0.07 acres would be filled (pg 2-24).

A related issue carried forward is that "riparian zones within the project area and those associated with wetlands would be impacted due to construction of the road. The loss of riparian vegetation could impact wildlife and could cause increased sedimentation in the stream...Increased sedimentation and destabilization of Quitchupah Creek and other creeks in the project area could impact fisheries and aquatic macroinvertebrates in the stream. The loss of the hydric fringe and stream-side wetlands could affect the reproductive success of fish species and some macroinvertebrate species that depend on vegetation for cover and prey" (pg 1-10). Table 2.6-1 notes that approximately 1.7 acres of riparian zone would be filled (pg 2-25), whereas another statement in the DEIS indicates that 3.2 acres of riparian habitat would be disturbed (pg 3-53).



### Response 401-3

The impacts of spills were previously addressed in the Draft EIS in Section 3.8 Fisheries, see page 3-65, 2<sup>nd</sup> paragraph. To elaborate: truck accidents would be a possibility on the proposed road, as they are on any road or highway where trucks travel. As stated in the EIS, a spill of coal, fuel, or other materials could occur as a result of such an accident and these substances could enter the stream. Standard response and cleanup to this type of spill would occur, but there could be some short term effects on water quality and biotic stream components. However, the potential for such accidents to occur would be slight. According to SUFCO, over the past five years, only two truck accidents have occurred on the steep, winding Acord Lakes road, out of an estimated 50 trucks per hour at peak times. Alt. D would reduce the risk of spills due to reduced length of road in proximity to the creek.

Wetland mitigation is described in the Monitoring Plan and the 404 Mitigation Plan.

QUITCHUPAH CREEK ROAD FEIS		Public Comments & Response
Letter #401		
401-4	Wetland and riparian losses need to mitigated to a greater extent than proposed to fix problems associated with this project. The DEIS proposes that 2.75 acres of riparian vegetation be restored. We believe additional wetlands should be created to filter the additional sediments expected when runoff and flood flows increase erosion of streambanks slow to revegetate due to continuing livestock impacts.	Response 401-4 The mitigation for wetlands and riparian has been better developed to fully compensate for these losses. Chapter 2 of the FEIS contains the applicant committed measures that consist of mitigations as part of the road design.
401-5	Check dams should be built throughout the fishless portion of Quitchupah Creek to create wetlands and pools to trap sediments. This would help amphibian populations persist and would benefit water quality in the fish-bearing portion of the stream. Additional check dams should be constructed in the north and south forks of Quitchupah Creek above USFS Road 007 as additional mitigation to offset impacts to Quitchupah Creek. Livestock exclosure fences should be installed to protect some of the newly-created wetland areas on each stream.	Fencing to exclude livestock on 4.7 miles of riparian corridor would improve riparian habitat.  Response 401-5 In the upper section of Convulsion Canyon and in East Spring Canyon where stream realignment would be required, grade control would be used
(401-2)	Livestock-proof fencing should be built and maintained to protect all vegetative planting areas associated with this project. This should include the reclaimed existing road and all disturbed soil around the new road. Without such fencing, suitable restoration of vegetation and protection of streambanks from erosion will not be possible.	where stream reangiment would be required, grade control would be used where appropriate to provide for vertical stability of the channel. Similarly, the two, on-stream wetland mitigation sites include a grade control component through the use of low-head dikes to impound water and stop active headcutting. Further, there is no evidence that Quitchupah Creek=s ability to meet aquatic water quality standards would be compromised with
401-6	For these reasons, coupled with an unconvincing argument for the necessity of this road, UDWR supports the No Action Alternative (Alternative A) proposed in this DEIS. Mitigation suggestions proposed in this letter may alleviate some impacts to wildlife, however, other impacts cannot be properly mitigated due to the nature and complexity of a wetland ecosystem in an arid climate.	proposed project. The State, (via its 303d program) has indicated that Quitchupah Creek meets its beneficial use standards for aquatic habitat; TDS is the only listed parameter of concern, and that is an agricultural standard, not an aquatic one.
	Thanks for the opportunity to review the Quitchupah Creek Road DEIS. If you have any questions, please call Leroy Mead in our Price office at (435) 636-0274.  Sincerely,	Response 401-6 All impacts cannot be mitigated. However, additional mitigation measures have been included in the FEIS with the goal of reducing the extent of impacts and mitigating completely for some impacts. These mitigation measures, discussed in Chapter 2 as applicant-committed measures for road
	Derris Jones Acting Regional Supervisor	design, apply to wetlands, riparian zones, winter range, sedimentation, rock art, and livestock trailing.
	DJ/lm  cc: Kay Erickson, Bureau of Land Management Diana Whittington, U.S. Fish and Wildlife Service	
	401)	

# **NATIVE AMERICAN LETTERS**

Letters Included:

Letter #268 - The Hopi Tribe

Letter #341 - The Paiute Indian Tribe of Utah

Letter #410 - Ute Indian Tribe



Wayne Taylor, Jr.

Phillip R. Quochytewa, Sr.

January 2, 2002

Mary C. Erickson, Forest Supervisor Attention: Linda L. Jackson, Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, Utah 84701

Jerry Meredith, Acting Field Manager Attention: Kay Erickson, Realty Specialist Bureau of Land Management, Richfield Field Office 150 East 900 North Richfield, Utah 84701

Dear Ms. Erickson, Ms. Jackson, Ms. Erickson, and Mr. Meredith,

This letter is in response to your correspondence dated December 3, 2001, with an enclosed Draft Environmental Impact Statement by the Bureau of Land Management (BLM), Richfield Field Office and the Fishlake National Forest, regarding a road construction project proposed by Sevier County and Canyon Fuels, Inc., in Sevier and Emory Counties. As you know from our attached letter dated December 18, 2000, and our March 21, 2001, administrative meeting on this proposal, the Hopi Tribe claims cultural affiliation to the Fremont prehistoric cultural group in Utah, and therefore we appreciate the BLM and U.S. Forest Service's continuing solicitation of our input and your efforts to address our concerns.

The Hopi Cultural Preservation Office understands that there are numerous prehistoric/Fremont archaeological sites located along the route of the Quitchupah Creek Road, several containing rock marking panels, and that many of these sites are significant in terms of their eligibility for nomination to the National Register of Historic Places. In our December 18, 2000, letter on this proposal, we stated that because the Water Hollow alternative would avoid archaeological sites in that right-of-way by virtue of re-routes, we supported the Water Hollow alternative to the Quitchupah Creek Road. We also stated that we support site avoidance for this proposal because we oppose the BLM policy that forbids reburial of human remains and funerary objects subject to the Native American Graves Protection and Repatriation Act (NAGPRA) from BLM lands on BLM lands. We further stated that until this policy is revised, we oppose any BLM proposal involving activities with the potential to disturb the remains of our ancestors on BLM lands.

-P.O. BOX 123- KYKOTSMOVI, AZ. - 86039 - [520] 734-3000-

Response 268-1
Comments noted.

268-1

T -44	,	<u> </u>
Letter #268		
#200		
	Mary C. Erickson, Jerry Meredith	
	January 2, 2002 Page 2	
	Hopi Cultural Preservation Office has reviewed the Quitchupah Creek Road Draft Environmental Impact Statement. We support the right of other Tribes to identify Traditional	
	Cultural Properties, and therefore we support the Paiute opposition to any project along	Response 268-2 An ethnographic study of the Quitchupah Creek area was conducted with
268-2	Quitchupah Creek because human activity could impact the sacredness of the canyon. And therefore, the Hopi Cultural Preservation Office supports Alternative A, No Action in this Draft	the Paiute Tribe (Stoffle et al. 2004). The Paiute Tribe has identified the
	Environmental Impact Statement. If any other alternative is selected we request to continue to be	Quitchupah Creek canyon as sacred; this is summarized in Section 3.13.
	consulted on this proposal.	Therefore some resolution with the tribes will need to be reached before any action is taken. Consultation with the tribes (Paiute, Hopi, and Ute) has
	If you have any questions or need additional information, please contact Terry Morgart at the Cultural Preservation Office at 928-734-3767. Thank you for your consideration.	been and will be on-going throughout the EIS process.
	4	
	Respectfully	
	Leigh W Kuwanwisiwma, Director Cultural Preservation Office	
	xe: Utah State Historic Preservation Office Paiute Tribe of Utah	
	·	
	(268)	

341-1



# THE PAIUTE INDIAN TRIBE OF UTAH

440 North Paiute Drive • Cedar City, Utah 84720 • (435) 586-1112

February 13, 2001

Re: Quitchupah Creek Road

To Whom It May Concern:

On behalf of the Paiute Indian Tribe of Utah, we acknowledge the public comment deadline of February 15, 2002 and wish to express our opinion regarding this proposed project. During the past year I had the opportunity to travel to Quitchupah Creek Road to view the rock art panels and rock shelters which contain prehistoric petroglyphs and pictographs which were done in red ochre.

It is evident that the selected route for the SUFCO trucks would destroy many of the cultural sites we believe to be significant. It would erase the past and make only a statement of profit for SUFCO Coal Mine, ignoring the impact it may have on the cattle and ranchers of that area and most importantly the history which will be lost forever due to this endeavor.

The Paiute Tribe of Utah adamantly objects to the selection of Quitchupah Creek Road for the purpose of providing a route for transporting coal from the SUFCO Coal Mine.

Sincerely,

Lora E. Tom, Chairwoman Paiute Social Services

LET/mwk

### Response 341-1

Comments noted. Section 106 of the National Historic Preservation Act regulations require federal agencies to determine whether a federal action will adversely affect cultural resources and consult to avoid, minimize, or mitigate adverse effects

An ethnographic study of the Quitchupah Creek area was conducted with the Paiute Tribe (Stoffle et al. 2004) and is summarized in Section 3.13 of the FEIS.



Letter #410	04/12/2002 14:34 FAX 435 896 1550 BLM RICHFIE	ELD @003	
410-1	Kay Erickson Bureau of Land Management Richfield Field Office 150 East 900 North Richfield, Utah 84701  Dear Ms. Erickson:  I have reviewed the Draft Environmental Impact S Road and I agree with the Alternatives that was st Rights Director, Betsy Chapoose. The only way t particular area, would be to eliminate public acces historic sites in that area. The other alternative wo  If you should have any questions please contact m Department 722-3970 or 722-3972.  Thank you.  Jonas Grant Sr., Director Ute Indian Tribe Natural Resource Department  cc: Resource file	aggested by the Ute Tribe Cultural o protect the petroglyphs in that s to the canyon this would preserve the uld be to use the Water Hollow area.	Response 410-1 Comments noted. The proposed alignment for Alternative B, Quitchupah Creek Road, and Alternative C, Alternate Junction, was shifted south. This alignment would place the proposed road about 300 feet away and across the creek from the rock art panels which are located north of the creek. The new alignment would also avoid impacting known cultural sites located within the previous alignment. No additional sites would be impacted by the reroute.  The existing road routed between the creek and the panels would be blocked for access. This would tend to limit access for casual visitors.  This modification to Alternatives B&C would avoid the direct impacts of a busy public road next to the rock art

# LOCAL ENTITY LETTERS

### Letters Included:

Letter #270 - Emery City Councilperson

Letter #300 - Sevier County Economic Development

Letter #303 - Emery Town

Letter #374 - Salina City Corporation

Letter #376 - Emery Town Councilperson

Letter #389 - Sevier County Special Service District No. 1

Letter #391 - Sevier County

Letter #392 - Six County Association of Governments

Letter #394 - Sevier County Public Lands Advisory Committee

Letter #409 - Emery County Public Lands Department

QUITCHUI	ATI CREEK KOAD I'EIS	1 uone Comments & Responses
Letter #270  270-1  270-2	Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, Utah 84701  Linda:  After reading the Quitchupah Creek Road Draft Environmental Impact Statement, rereading parts of it, talking with others and reading the article in the Emery County Progress following your presentation to the county commissioners, I have decided that I am leaning toward the Water Hollow option.  This option will cost more money, but then that's not the main issue. It will not impact any archaeological sites, and I feel that is important. These sites are hundreds of years old and need to be preserved. We enjoy going to the sites that we know about, looking at them, teaching our children and grandchildren about them. This is part of our heritage and needs to be preserved.  I would like to see a 4-wheeler/cattle trail go along side the road as it goes on up through the canyon. We enjoy riding this area, using it to go up onto the Old Woman through Jolley Mill, or going on up to the Acord Lake area, my parents have a cabin at Acord Lake and we love going ther. We like to travel on over to the Duncan Mountains and then dropping off Link Canyon. We have made these loops on our 4-wheelers many times and for many years.  We also own horses and enjoy riding them and would like to see a corridor open for us to ride up through this canyon.  Access to this area for these forms of recreation needs to be preserved. I don't feel that it would add anything to the cost of building this roadway.  Sincerely,  Charling & Zoning Boardmember Southeasterm UT OHV Club Boardmember Southeasterm UT OHV Club Boardmember	Response 270-1 A fenced livestock trail would be constructed along 1.5 miles of the proposed road in Convulsion Canyon where the topography limits free movement of livestock. East of this, livestock would trail outside of the fenced corridor.  Response 270-2 Currently there is not a designated ATV trail in the canyon. There will be no ATV trail constructed beside the proposed road.
	Glenys C. Sitterud Emery City Councilperson Emery Co. Panning & Zoning Boardmember	

Letter #300	Sevier County Economic Development  250 N. Main • Richfield, UT 84701 Phone: 435-893-0454 • Fax: 435-893-0495 Email: sevierutah@hotmail.com	
	February 6, 2002	
300-1	Ms. Linda Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, UT 84701  Dear Ms. Jackson:  This letter is to express my support for the Quitchupah Creek Road proposal, specifically, Alternative D in the study draft.  Alternative D appears to carry the best balance of impact and mitigation to meet the needs of all parties involved. This office supports the effort to safely and efficiently move coal from the mine to its customers in Emery County. As you know, the coal mine operation is a major employer and provides a higher wage job than most other organizations. At the same time, this project and Alternative D protects important cultural sites and the environment.  Sincerely,  Malcolm R. Nash Director	Response 300-1 Comments noted.

QUIT CITCITIII	I CREEK KOND I EID	T would Comments & Responses
Letter #303		
	EMERY TOWN P.O. BOX 108 EMERY, UTAH 84522  February 11, 2002  FEB 1 ZUUZ	
S	Kay Erickson Bureau of Land Management 150 East 900 North Richfield, Utah 84701 Dear Mr. Erickson:	
	The purpose of this letter is to offer comments on behalf of Emery Town regarding the proposed Quitchupah Creek Road.	
303-1	It is the position of the majority of the citizens of this town that Alternative A, No Action, is the preferred alternative. They feel that this is a very permanent solution to support an industry that will only be operating for the next 30 years or so. The destruction of archeological sites, disruption of wildlife, requiring trucking of cattle, and the general degradation of a beautiful pristine canyon are too high a price to pay when a perfectly acceptable alternative already exists, i.e., the Convulsion Canyon road down to I-70.	Response 303-1 Comments noted.  Response 303-2 The design of the road would utilize additional granular fill to mitigate for the unstable soils per UDOT recommendations, see Borrow Material Areas
303-2	It is the opinion of many in this town that road down that unstable canyon would be at best difficult and very expensive to maintain. And long after mining ceases, the road would be a permanent scar on the landscape.	in Chapter 2 of FEIS. This design should make for a stable road base. The scar from construction of the proposed road would be readily visible within Quitchupah Creek but would not be readily apparent from SR-10. The
303-3	An alternative presented by a town councilman concerns the Muddy Creek area. He feels that since the mine wishes to put an opening into this area to drain water from the mine, he asks if a portal could be opened there and a road built from there down to Hwy 10. The road would be all on Forest Service or BLM land, bypassing the Hinkins property. It would also then bypass Emery Town. This would shorten coal haul even more.  This concludes our comments. Thank you for the opportunity to present our views.	visual intrusion of the proposed road would meet visual standards for the Fishlake National Forest and the BLM Richfield Field Office. See Section 3.10 Visual Resources, Recreation, and Wilderness, in the FEIS for explanation of visual impact.  Response 303-3 A portal loadout facility in Muddy Creek is not feasible for the SUFCO Mine because the interior mine coal transport system is aligned west and
	Michael Julliams, Mayor Emery Town	south away from Link Canyon and Muddy Creek. See Section 2.6 of the FEIS.
	303	

374-1



# SALINA CITY CORPORATION

90 WEST MAIN · PO. BOX 69 · SALINA, UTAH · 84654 · (435) 5297304 FAX (435) 529-1235

February 13, 2002

Ms. Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, UT 84701

Dear Ms. Jackson:

RICHFIELD RANGER DISTRICT
RECEIVED
FEB 1 9 2002
FANGER
BUSINESS MGMT
RECREATION
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WILDLIFE

My office would like to enter our support for the Quitchupah Creek Road proposal. Based on our understanding of the project, the Water Hollow Road route (Alternative D) is the option with the lease conflict, and also has support of the only private landowner in the area.

We wish to express our admiration of the public-private nature of this proposal. Under the plan, the Sevier County Special Services District would construct this public road. The SUFCO Mine would then be a toll user of the public road in order to pay for the construction and maintenance of the road. The end result is that the project is beneficial for several reasons:

- The Quitchupah Creek Road reduces the total amount of trucks on roughly 50 miles (round trip) of SR-10 and I-70.
- 2) It is given that the coal contracts have been signed and the coal will be delivered to the Hunter Power Plant and the Savage loadout. The Quitchupah Creek Road directly addresses the efficiency and safety of the delivery of the coal along a portion of the route.
- 3) The State of Utah is blessed with some of the lowest cost electricity in the United States, as well as providing low cost power to Nevada and California. This is due to the availability of Utah's high quality, low sulfur coal. However, the rail system in central Utah is relatively undeveloped, and the delivery of Utah coal is largely dependent on the highway system. Again, the Quitchupah Creek Road directly addresses the efficiency of coal delivery with a relatively unique public/private partnership.

Thank you for the opportunity to comment on the Quitchupah Creek Road proposal.

Sincerely,

Marilyn S. Anderson Salina City Mayor



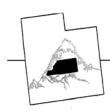
Response 374-1

Comments noted.

Letter	03/19/02 TUE 11:15 FAX 801 896 9347 FISH LAKE NTL. FOREST	Ø 002	
#376 376-1	Linda L. Jackson Public Affairs Officer, Fishlake National Forest 115 East, 900 North Richfield, Utah 84701  Subject: Proposed coal haul road down the Quitchempah canyon.  The town of Emery is against the construction of any coal haul road down the Quitchempah Canyon because we are tried of all the truck traffic through town, and we believe that if the proposed road was built down the Muddy Creek canyon it would be beeneficial to Sufco and the Town of Emery.  We understand that the Sufco Mine proposes to portal out in the Muddy Creek to de-water the mine. We think that this is the right thing to do because at the present time the normal flow of surface and ground water is being diverted in the Wilder Knolls and Pines areas to the Quitchempah creek from the Muddy creek drainage. This will correct this problem caused by the mining of coal, and put the water in the mine back where it belongs.  I also feel that the area where this new portal will be would be an excellent place to load trucks taking coal to points east of the Sufco mine. There is a mild grade down the Muddy creek and the only Indian writings would not be impacted by a road as they are up on the safe of the canyon. We also believe there would be little if not any public on the safe of the canyon. We also believe there would be little if not any public and the Muddy Creek would be subjected by a road as they are up on the safe of the canyon where subject to the Moore flat and the souther court. I have no index as to the Moore flat and the south route. I have no idea as to the Moore flat and the subject of the Moore flat was located but a load-out of the Moore flat and the subject of the Moore flat will be mounted by David Hinkinsh shence staying on Forest Service and BLM mount of the canyon owned by David Hinkinsh shence staying on Forest Service and BLM mount of the canyon where the old Recee Mine was located but a load-out facility located in the Mu		Response 376-1 Comments noted.  Response 376-2 Muddy Creek, a deep canyon on the north side of the Pines Tract, which is now being mined through the SUFCO Mine, was also considered as a possible portal site and coal transport route. The SUFCO Mine has applied for treated mine water discharge into Muddy Creek via a small portal located on the side of the canyon. There are two problems with enlarging this portal for loadout, 1) a route in the canyon is very rough and steep and would be located adjacent to a stream that provides culinary water, a problem for maintaining water quality, and 2) the mine plan as explained in the preceding discussion on a portal in Link Canyon makes this portal site economically unfeasible. See Section 2.6 in the FEIS.

_		Fuolic Comments & Responses
Letter #389	FEB.26.2002 11:489M SUFCO MINE NO.145 P.2/2	
389-1	Ms. Mary C. Erickson Porest Supervisor February 26, 2002  Ms. Mary C. Erickson Porest Supervisor Fishlake National Forest 115 East 900 North Richfield, UT 84701  RE: Quitchupah Creek Road EJS  Dear Ms Erickson:  Sevier County Special Service District No.1 requested right-of-ways from both the USFS and BLM for improvement of an existing dist road down Quitchupah Canyon. We appreciate the cooperation of the USFS and the BLM in the NEPA process and wish to express out opinion as to the desired coarse of action.  We initiated the activity on the Quitchupah Road NEPA process about four years ago. This project will provide benefit to the Sufto mine, trucking companies, counties and clistens of the area. Atlaugh the Water Hollow Alternative costs additional money, we believe it is the best route and support its selection as the preferred alternative for the EIS. This route mitigates most of the concess of the private landowners and the Native Americans and still meets most of the needs of the mine and trucking operations. It would also avoid known cultural resources sizes and allow radional uses of Quichupah Canyon.  A cattle truil should be included in the design of the road on the Forest Service Lands to allow the traditional radiings of cattle. This trust could be located north of the road with the north side of the road being fenced from Broad Hollow to Water Hollow thus separating the trailing cattle and road traffic.  Service County Special Service District No. 1 strongly suggests selection of Alternative D, Water Hollow Route as the preferred alternative for the EIS.  Sincerely,  Weslop-K. Sorensen Rajh Okerland Secretary  Treasurer	Response 389-1  A fenced cattle trail would be constructed on 1.5 miles of the west end of the road where topography limits free trailing movement. East of this, livestock would trail outside the fenced road corridor. See Section 3.8 of the FEIS.

391-1



Sevier County

COMMISSIONERS: Tex R. Olsen Gary B. Mason Ralph Okerlund Administration Building 250 North Main Richfield, Utah 84701 (435) 893-0400 FAX (435) 896-8888 Steven C. Wall - Clerk/Auditor Gail DeMille - Assessor Shawn M. Fuellenbach - Treasurer Jayrene B. Nielsen - Recorder

February 26, 2002

Ms. Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, UT 84701

Dear Ms. Jackson.



The Sevier County Commission has, and will continue to support the idea of a developed road from the Convulsion Canyon Mine in Sevier County to State Route 10. We see a definite need for the road, which will be a county road, and a great opportunity to get it built without the use of public funds. We believe this to be a win-win situation for our public because of the willingness of the mine management to charge a toll for the construction of the road and the ability of the public to use the road for access to the Accord Lakes area, as well as access for employees and service personnel from Emery and Carbon Counties.

Our County Commission supports Alternative D, the Water Hollow route, and we encourage your agencies to look closely at this alternative. As you know, it is a longer and more expensive route but we believe the benefits outweigh the costs. The obvious benefits are, less archeological disturbance, and greater acceptance by private landowners and Native American groups. We believe this route will enhance the scenic opportunities, as it gets out of the bottom of the canyon and may well compliment the eventual development of the rock art sites along Quitchupah Creek.

The Commission believes that the impact to public lands (approximately 150 acres) is well worth the benefits of public safety, emergency response capability, economic benefits, greater convenience of travel for the public and new scenery availability. We believe that these opportunities fit well into the governance of the multiple use policy for public land management. The economic benefit alone is extremely important to our county and is well documented in the draft E.I.S.

We wish to thank you for the opportunity we have had to work with you on this project and to comment on this draft. We offer our availability and willingness to continue to work together to get this important project completed.

Sincerely,

Tex R. Olsen Commissioner Ralph Okerlund
Commissioner

Gary Mason Commissioner

Visit Sevier County – The Hub of Scenic Southern Utah

Response 391-1

Comments noted.



### SIX COUNTY ASSOCIATION OF GOVERNMENTS

Sevier County Courthouse 250 North Main Richfield, Utah 84701 Telephone: (435) 896-9222 Fax: (435) 896-6951 OFFICE OF EXECUTIVE DIRECTOR
PLANNING AND COMMUNITY DEVELOPMENT
AGING/HUMAN RESOURCES
ADMINISTRATIVE SERVICES

February 26, 2002

Ms. Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, UT 84701

Dear Ms. Jackson:

392-1

As you are aware the Six County Association of Governments comprise local officials of Juab, Millard, Piute, Sanpete, Sevier and Wayne counties. Through a united voice we would like to submit our support for the Quitchupah Creek Road proposal.

After a review of the project, we believe that the Water Hollow Road route, or Alternative D, is the option with the least conflict. This alternative also has the support of the only private landowner in the area.

We commend the public-private partnership of this project. It is our understanding that Sevier County would construct a public röad, and after construction, SUFCO Mine would be a toll user of the road. Proceeds from the toll collection would be used to offset road construction and maintenance costs of the road. The end results of the project will be most beneficial.

The Quitchupah Creek Road reduces the amount of trucks on SR-10 and I-70 on a 50 mile round trip coal haul. With signed contracts, SUFCO will deliver coal to the Hunter Power Plant and Savage Load-out. The Quitchupah Creek Road directly addresses the safety of delivery along portions of the route. Additionally, the Road provides for much more efficient means of delivery. Finally, Utah has a high quality, low sulfur coal, and utilization of this coal in power generation has resulted in some of the lowest electricity costs in the United States. This low cost power also benefits Nevada and California. Because the rail system in central Utah is underdeveloped and no alternative means of transportation is available, coal must be transported on Utah's highway system. Again the Quitchupah Creek Road addresses this concern and provides a means of efficiency through a very unique public/private partnership.

We commend the efforts of those involved in developing this project. We feel the Quitchupah Creek Road project is a necessary project which will help a major industry of the area remain viable and profitable.

We appreciate the opportunity of providing these favorable comments on the Quitchupah Creek Road proposal. Should you need additional information or comments, please feel free to contact Mr. Russ Cowley, Executive Director at (435) 896-9222 Ext. 12.

Sincerely yours,

Commissioner Joseph Bernini

SCAOG Chair

392

Juab • Millard • Piute • Sanpete • Sevier • Wayne

Response 392-1

Comments noted.

Sevier County Public Lands Advisory Committee 250 North Main

Richfield, Utah 84701 435-893-0458

February 26, 2002

Ms. Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, UT 84701

Dear Ms. Jackson,

Our Committee would like to enter our support for the Quitchupah Creek Road proposal. Based on our understanding of the project, the Water Hollow Road route (Alternative D) is the option with the least conflict, and also has support of the only private landowner in the area.

We wish to express our admiration of the public-private nature of this proposal. Under the plan, the Sevier County Special Services District would construct this public road. The SUFCO Mine would then be a toll user of the public road in order to pay for the construction and maintenance of the road. The end result is that the project is beneficial for several reasons:

- The Quitchupah Creek Road reduces the total amount of trucks on roughly 50 miles (round trip) of SR-10 and I-70.
- It is a given that the coal contracts have been signed and the coal will be delivered to the Hunter
  Power Plant and the Savage loadout. The Quitchupah Creek Road directly addresses the efficiency
  and safety of the delivery of the coal along a portion of the route.
- 3. The State of Utah is blessed with some of the lower cost electricity in the United States, as well as providing low cost power to Nevada and California. This is due to the availability of Utah's high quality, low sulfur coal. However, the rail system in central Utah is relatively undeveloped, and the delivery of Utah coal is largely dependent on the highway system. Again, the Quitchupah Creek Road directly addresses the efficiency of coal delivery with a relatively unique public/private partnership.

Thank you for the opportunity to comment on the Quitchupah Creek Road proposal.

Sincerely,

Ralph Okerlund, Co-chair

Gary Mason, Co-cha

2011

Response 394-1
Comments noted.

6-57

FISHLANE NATIONAL PONENT RECEIVED

FEB 2 7 2002

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COPPESSENTION.

394-1



**Public Lands Department** 

Val Payne, Director

February 26, 2002

Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, Utah 84701

Kay Erickson Realty Specialist Bureau of Land Management Richfield Field Office 150 East 900 North Richfield, Utah 84701

RICHFIELD RANGER DISTRICT RECEIVED

MAR 1 5 2002

BUSINESS MGMT\_

RECREATION\_

RANGE.

RANGER\_

TIMBER

WEDELFE.

RE: Draft Environmental Impact Statement (DEIS) for the proposed Quitchupah Creek Road

On behalf of Emery County, I appreciate the opportunity to comment on the above referenced DEIS. Emery County acknowledges the stated purposes and needs for the proposed road, as defined in the DEIS. Additionally, the county is aware of the concerns associated with the project involving livestock operations, private property. cultural resources, wildlife, water resources, traditional recreational uses including OHV/ATV access, and the natural and historic ambiance of Quitchupah. Emery County recognizes that the major portion of the proposed project is outside of the county; however, the impacts resulting from the project and the associated transportation of coal directly effects Emery County and its citizens.

Emery County strongly supports the established livestock operations and activities associated with the allotments in Qutichupah and the surrounding area. The county is equally supportive of protection of private property interests, cultural resources and traditional uses related to the Quitchupah area. Therefore, Emery County recommends modification of Alternative D to include fencing and underpasses for livestock and wildlife, as described in the DEIS. Additionally, a fenced livestock trail should be established along the western portion of the project, in Convulsion Canyon, to facilitate movement of livestock and wildlife. As the DEIS states, "... ATV activity occurs in the

P.O. Box 1298, Castle Dale, Utah 84513 

Telephone (435) 381-5552 

Fax (435) 381-5644

Response 409-1

A fenced cattle trail would be constructed along 1.5 miles of the western portion of the proposed road where topography prohibits free movement of the cattle. From there the cattle would trail outside the fenced road corridor.

The livestock trail would not accommodate ATV traffic, nor would ATVs be able to utilize the area outside the fence.

409-1

### **OUITCHUPAH CREEK ROAD FEIS**

Letter #409	
409-1 cont.	canyon although this area is not currently regulated as an official ATV use area by either the Forest Service or BLM." The livestock trail could accommodate ATV use if the regulatory agencies allow such use. Drift fences and corrals should be constructed as necessary to address the needs of the livestock permittees. Impacts unique to an individual permittee should be appropriately mitigated. Selection of a modified Alternative D will allow the traditional uses associated with Quitchupah to continue and will eliminate or greatly reduce the potential impacts to cultural resources. Alternative D involves only two parcels of private property and a single private property owner. The county believes that the concerns regarding private property will be addressed through the modified Alternative D.
409-2	Emery County concludes that Alternative D, modified as described herein, is the only alternative which satisfies the purposes and needs identified in the DEIS while addressing the concerns which have been brought before the County regarding the proposed project.
	The following additional comments are offered:
409-3	Statement at page xi regarding Alternative C reads, "This routeallow loaded coal trucks to utilize their momentum gained while descending Quitchupah Creek Road to ascend the 0.6 percent grade." Statement at page xiv regarding Alternative C reads, "The routeloaded haul trucks would use the momentum gained descending Quitchupah Creek to ascend the 2.5 percent maximum grade".
409-4	The DEIS contains Statements, at page xiii and elsewhere, regarding reduced total dissolved solids (TDS), or decreased salinity in Quitchupah Creek resulting from the improved road. However, the DEIS does not address the potential for TDS and salinity to increase due to salt used during winter road maintenance operations.
409-5	The discussion at page xiv, comparing Alternative C to Alternative B is confusing. Regarding Alternative B, the DEIS reads, "The route would reduce the round-trip haul by 50 miles". Regarding Alternative C the DEIS reads, "Impacts are similar to those summarized under Alternative B, except the route would be slightly longer; however, it would save an additional 53 miles on the round-trip haul". If the route is "slightly longer", additional miles cannot be saved. Also, the miles saved by the "longer" route would be a total of 53 miles, or an additional 3 miles, not be an additional 53.
409-6	The information, at page 2-3, regarding the increase in the percentage of coal truck traffic on SR-10 (from 20% to 60%) should be included at page 3-110, rather than the current statement which simply indicates that recent percentage figures "have/will become inaccurate" due to "additional haul truck traffic to SR-10".
409-7	The property owner identified at page 2-2 as Thomas C. Bunn, et al conflicts with Figure 2-2 which shows the property owner as Thomas E. Bunn, et al.
	409)

### Response 409-2

Comments noted.

#### Response 409-3

Editorial changes made.

### Response 409-4

The final EIS has been revised to include a more extensive description of the BMPs associated with the proposed road design, construction, and maintenance. Further, it has been revised to include details on applicant-committed and agency-committed measures, which would help to reduce existing sediment/salinity impacts. Lastly, the EIS has incorporated an extensive monitoring plan, which would ensure that chronic sedimentation/erosion sources associated with the road project are fixed. All of these measures combined would minimize the potential for increasing the amount of total dissolved solids in Quitchupah Creek above current levels, in spite of some localized areas of increased erosion due to increased disturbance.

Further, It is important to note that the Utah Division of Water Quality, in its West Colorado Watershed Management Unit Water Quality Assessment Report (Dec 2000), states that the probable sources for TDS in the 303(d) listed stretch of Quitchupah Creek downstream of the project area were natural and agricultural practices, not roads. While there are other contributors to watershed erosion and salinity loading to Quitchupah Creek, there is no intent in this project, nor does there need to be, to fix all prior existing problems in the Quitchupah Creek watershed. The existing character of the water, riparian, soil conditions, upland watershed uses (including ATV and livestock), and instream water rights were all documented in the affected environment section of the Draft EIS.

The existing mine drainage from the SUFCO Mine is permitted under the The existing mine drainage from the SUFCO Mine is permitted under the UPDES wastewater discharge program and is generally of better quality in regard to TDS than the receiving waters it discharges to.

However, the net effects of the proposed project on the stream would be monitored, and mitigation implemented as necessary should impacts be noted.

Livestock impacts on riparian areas were noted in the Draft EIS, but given the primacy of the private landowners and the valid in-stream stockwatering rights, it is difficult to see how to mitigate TDS impacts by changing this. The proposed riparian fencing of several miles of Quitchupah Creek would, over time, help to reduce livestock impacts to riparian areas. Further, mitigation measures to reduce overall watershed erosion and stream sedimentation would require large scale watershed projects that would be beyond the scope of this road project. The old road would be reclaimed under Alternatives B&C as previously stated on page 2-12 in Section 2.2, Alternative B of the Draft EIS.

QUITCHUPAL	I CREEK ROAD FEIS	Public Comments & Responses
Letter #409		Response 409-4 cont.  A sand/salt mix would be used for winter maintenance. Chemicals, such as commonly used road salt, would be needed during the winter to insure safe driving conditions. However, best management practices would be applied
	Page 3-54, reference to Section 4.9 should be 3.9.	to insure that they are used in an appropriate manner to minimize contributions to stream salinity. Newer chemical alternatives to salt, such as
409-8	Page 3-67, reference to Table 3.8-1 should be 3.9-1.	calcium magnesium acetate, have not been used extensively in Utah, but
	Page 3-70, reference to Table 3.8-2 should be 3.9-2.	could be a possibility for use in the future should cost, safety, and environmental concerns allow.
	At page 3-89, the reader is referred to Appendix B regarding the irrigation canal that would be affected at various locations between Stations 290+00 and 350+00. However, the location of the canal is not identified on Strip Maps 10 through 12 in the Appendix. Therefore, the reader must discern the location of the canal based on contour lines.	Response 409-5 Editorial changes made.
	Page 3-98, references to Table 3.12-1 should be 3.13-1.	Response 409-6 Editorial changes made.
	Page 3-108, references to Alternative A are incorrect.	Response 409-7
	Page 3-110, Table 3.15-1, reference to SR-122 should be SR-155. The information presented at page 3-110 should indicate that the traffic volumes projected for the year	Editorial changes made.
	2020 will possibly occur much sooner, as discussed at pages xii and 3-114.	Response 409-8 Editorial changes made.
	Page 3-114, reference to Table 3.14-1 should be 3.15-1.	Editorial changes made.
409-9	Regarding the socioeconomic analysis of impacts to SR-10, Emery County understands the rationale stated at page 3-124, "In order to accurately compare the costs among alternatives associated with upgrading SR-10, it is necessary to focus on the segment of road, and associated costs, that would experience differences attributable to the four alternatives." Namely, the segment of SR-10 from I-70 to the northernmost junction of the proposed Qutichupah road. However, as the DEIS also states, "Any impacts occurring to the north of that point would be common to all alternatives." Therefore, a more complete and meaningful assessment of socioeconomic impacts to SR-10 should address the projected increase in coal truck volumes identified in the DEIS and the	Response 409-9 Some of the work has been completed to maintain and upgrade SR10 to accommodate the increased coal truck traffic. This information is discussed in Alternative A No Action in Section 2.1. A more detailed discussion is included in Section 3.14 of the FEIS.
	resultant impacts to SR-10.  The DEIS states at page 3-122, "SR-10 is an old road built on poor soil materials that is	Response 409-10 Information regarding SR-10 has been revised in Chapter 2 and Section 3.14.
409-10	narrow, follows the contour of the land in hilly terrain, and has weak to medium strength pavement structure. Under existing traffic the years to fatigue average nine with four years being the worst case." The DEIS also indicates, at page 2-3, that SR-10 north to Muddy Creek would need to be rebuilt and bridges replaced to accommodate the projected level of coal truck traffic which may reach 128,000 trips per year, as much as a 25% increase over existing traffic volumes. The projected fatigue of SR-10 from the proposed intersection of the Qutichupah road to the Hunter Plant	Response 409-11 The loss of AUMs is insignificant. About 1.5 miles of fenced livestock trail
409-11	should be addressed in the DEIS.	would be constructed on the west end of the proposed road where topography limits free trailing movement. East of this, livestock would trail
+U7-11	The socioeconomic section of the DEIS is deficient in that the discussion of the "negative impacts to the these ranching operations", at page 3-128, does not	outside the fenced corridor.
	409	

Q 011 011 011	ATI CREEK ROAD FEIS	T uotic Comments & Responses
Letter #409		
409-11	adequately address the socioeconomic impacts to the livestock operators. Impacts should be quantified.	
cont.	Figure 3-6, the explanation info for Elk Habitat is incorrectly labeled.	
409-12	Appendix B, Strip Maps are titled Plan and Profile; however, the profile view is not shown.	Response 409-12 Editorial changes made.
	Strip Map 7, an area between Stations 220+00 and 224+50 is delineated. It appears that it may be proposed as a potential staging area; however, it is not consistent with the Explanation provided on the map.	
	Thank you for the opportunity to participate in the review of the DEIS. If you have questions, please call me at (435) 381-5552.	
	Sincerely	
	Val Payne, Director Emery County Public Lands Department	
	Linely County Fubic Lands Department	
	-	
	•	
	(409)	

# **GROUP LETTERS**

### Letters Included:

Letter #3, 12-95, 273, 373 - Robinson Transport

Letter #6-10 - Barney Trucking

Letter #98, 148, 274 - Triune, Inc.

Letter #100 - RMA Sales Management Co.

Letter #102 - Forest Guardians

Letter #107 - Western Mine Tools, Inc.

Letter #108-179 - Local Citizens

Letter #147 - Southeastern Utah Off-Highway Vehicle Club

Letter #149 - Morgantown Machine & Hydraulics of Utah Inc.

Letter #180-267, 277-298, 304-336, 339 - SUFCO Mine

Letter #276 - Longwall West, Inc.

Letter #337 - Industrial Electric Motor Service

Letter #338 - RM Wilson Co.

Letter #342 - Tram Electric Inc.

Letter #343 - Tram Electric Inc.

Letter #344 - Tram Electric Inc.

Letter #345 - Tram Electric Inc.

Letter #346 - Tram Electric Inc.

Letter #347 - Tram Electric Inc.

Letter #348 - Tram Electric Inc.

Letter #368 - Custom Supply, Inc.

Letter #369, 370 - Barclay Mechanical Services, Inc.

Letter #371 - Utah Wildlife Federation

Letter #375 - Savage Industries Inc.

Letter #377 - DBT America Inc.

Letter #380 - Joy Mining Machinery

Letter #381-388 - DBT America Inc.

Letter #396 - Canyon Fuel Company, LLC

Letter #398 - Utah Archaeological Research Institute

Letter #400 - Castle Valley Land and Livestock

Letter #402 - Utah Farm Bureau Federation

Letter #403 - Utah Environmental Congress

Letter #404 - Southern Utah Wilderness Alliance

Letter #406 - Interwest Mining Company

Letters #3,12 - 95, 273, 373

3-1

3-2



(435) 529-7472 • Fax (435) 529-7820

January 28, 2002

Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, Utah 84701

RE: Quitchupah Creek Road EIS

Dear Ms. Erickson:

The development of a shorter route between the SUFCO Mine and Highway 10 would reduce the time and fuel consumption for the hauling of coal to the Hunter Power Plant and Savage Coal Terminai. In addition, it would reduce the potential for accidents with other motorists using the same roads as trucks hauling coal. We are in favor of the construction of the proposed Quitchupah Creek Road with the Alternative D alignment as our preference.

Thank you for your consideration and review of the information concerning the construction of the Quitchapah Creek Road Project.

As an employee of a trucking firm 1 would propose the Alternative D alignment as my preference.

Sincerely,

Address:

10005 Haguey, 1070 North SHAK. Signed U.T.

### Response 3-1

The fuel savings are described in Section 3.15 Socioeconomic Resources.

### Response 3-2

The presence of an alternate route to SUFCO Mine would aid in rendering assistance by outside agencies during an emergency. The proposed road would eliminate the possibility of traffic collisions with coal trucks from the SUFCO Mine east on I-70 to Fremont Junction and north on SR-10 to Quitchupah Creek Bridge.

This letter also signed by: Jeff Leavitt, Cody K. Bradshaw, Teddy Anderson, Terry Harvey, Will E. Dob, Scott L. Malmgren, Brent C. Lawson, Randy Elmer, Rodney Nielson, Lawrence Wichael, Dan Chavis, George Allen, Jacob Leavitt, Gerry W. Hansen, Roger Otis, Chuck Roberts, Scott Hall, Kristoffer G. Noyes, Shawn Edwards, Mitchell Anderson, Michael J. Brandon, Tim Snow, Burke Barton, Jeff Devereaux, Michael Pendleton, Jerry Nebeker, Michael Jensen, Ronnie Lund, F. LaMar Christensen, Jeremy M. Roberts, Lewis Robinson, Troy Torgason, Brandon J. Mason, H. Kim Gramse, Mark E. Miller, Robert C. Banks, Kerry Ball, Eric Lenth, Scott A. Beckstead, Rodney Butcher, Cody Christensen, Yanell P. Synder, Delmar T. Overall, Edwin O Heath, Brady Barton, Billy A. Pay, Jack B. Robins, Dillan Hutchings, Dustin Malmgren, Steven Rasmussen, J.W. Anderson, Tony Barney, Marty Lewis, Jeff Leavitt, J.R. France, Larry Gregerson, Joseph Udy, Harold Kim Gramse, Dave Torgason, Darwin Brown, Cory Piep, Grant Bastian, Harold Harrison, Ellis Miller, Rex Barney, Blaine Buchanon, Evan Leavitt, Steve Smith, Charles Black, Kevin Williams, Jerry Mason, Rick Holliday, Lester Neffsinger, Matt Long, Jason Willder, Kim Curtis, Neil Beach, Dan Poulson, Kim Robinson, Shane C. Barrow, Travis Harvey and six illegible names.

3

Letter #6-

6-1



January 28, 2002

Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701

RE: Quitchupah Creek Road EIS

Dear Ms. Erickson:

The development of a shorter route between the SUFCO Mine and Highway 10 would reduce the time and fuel consumption for the hauling of coal to the Hunter Power Plant and Wellington. In addition, it would reduce the potential for accidents with other motorists using the same roads as trucks hauling coal. We are in favor of the construction of the proposed Quitchupah Creek Road with the Alternative D alignment as our preference.

Thank you for your considration and review of the information concerning the construction of the Quitchupah Creek Road Project.

0

Address

Jalin Stap 8454

6)

Barney Trucking Inc.
195 South 800 West • Salina, Utah 84654 • (435) 529-3701 Office • (435) 529-7314 Fax

Response 6-1

Comments noted.

This letter also signed by: Brad Barney, Lane Barney, and Glen M. Barney.



\_\_\_\_

January 28, 2002

Ms. Linda L. Jackson Public Affiairs Officer Fishlake National Forest 115 East 900 North Richfield, UT 84701

Dear Ms. Jackson,

FISHLAKE NATIONAL FOREST RECEIVED JAN 3 0 2002 B&F\_ FMD OIS PAO. HR\_ RANGE. 13 4 E REC\_ PURCH TIMBER. RES\_ WISHD. TCOM\_

FISHLAKE NATIONAL PORTES RECEIVED JAN 3 0 2002 END\_ B&F PARE G/(3) PAO... PANGE. REC\_ 4.6 PURCH. TIMBER\_ WTSHD. RES ENTRP. TCO% COPIES SE

My office would like to enter our support for the Quitchupah Creek Road proposal. Based on our understanding of the project, the Water Hollow Road route (Alternative D) is the option with the least conflict, and also has support of the only private landowner in the area.

We wish to express our admiration of the public-private nature of this proposal. Under the plan, the Sevier County Special Services District would construct this public road. The SUFCO Mine would then be a toll user of the public road in order to pay for the construction and maintenance of the road. The end result is that the project is beneficial for several reasons:

- The Quitchupah Creek Road reduces the total amount of trucks on roughly 50 miles (roundtrip) of SR-10 and I-70.
- It is a given that the coal contracts have been signed and the coal will be delivered to the Hunter Power Plant and the Savage loadout. The Quitchupah Creek Road directly addresses the efficiency and safety of the delivery of the coal along a portion of the route.
- 3. The State of Utah is blessed with some of the lowerst cost electricity in the United States, as well as providing low cost power to Nevada and California. This is due to the availability of Utah's high quality, low sulfur coal. However, the rail system in central Utah is relatively undeveloped, and the delivery of Utah coal is largely dependent on the highway system. Again, the Quitchupah Creek Road directly addresses the efficiency of coal delivery with a relatively unique public/private partnership.

Thank you for the opportunity to comment on the Quitchupah Creek Road proposal.

Brad Barney – Barney Trucking Inc.

1.1

Barney Trucking Inc.

195 South 800 West • Salina, Utah 84654 • (435) 529-3701 Office • (435) 529-7314 Fax

### Response 10-1

Comments noted.

#### Response 10-2

The I-70 and SR-10 road systems presently are the only route for transporting coal east from the SUFCO Mine, a rail system does not exist nor is one planned for eastern Sevier County.

10-1

10-2

Letter #98, 104, 148, 274

98-1



TRIUNE, INC.

GENERAL OFFICES:

2328 I-70 Frontage Road Grand Junction, Colorado 81505 (970) 242-2200 FAX: (970) 241-4198

> RANGE REC\_\_\_\_ TIMBER.

WISHO

FISHLANE MITCHEL FOREST REOFTVED

Selected Products and Systems for Mining

January 31, 2002

Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701

RE: Quitchupah Creek Road EIS

Dear Ms. Erickson:

As part of my business, I frequently travel to the SUFCO mine. I support the construction of the Quitchupah Creek Road for the following reasons:

- It will provide a shorter route from Emery County to the SUFCO Mine and the Acord Lakes area thus saving time and fuel;
- Create a lower probability of accidents with passenger vehicles by reducing traffic on I-70 and the Acord Lakes Road;
- 3. Saves wear and tear on existing highways;
- 4. Provides alternative route from Emery County to the Salina area, and
- Employment opportunities at the SUFCO Mine would be more appealing to Carbon and Emery County residents.

We would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.

Sincerely

thomas I terjeil

Address:

Triune, Inc.

\_2328\_I=70 Frontage.Rd., a compositive Amplionation Administration of continues

Grand Junction, CO 81505

98

PRICE, UTAH (435) 637-4836 ROCK SPRINGS, WY (307) 875-2220 GILLETTE, WY (307) 686-1515 HENDERSON, KY (270) 869-0246 CARLSBAD, NM (505) 887-7600

### Response 98-1

Comments noted.

This letter also sent and signed by Tod Woomer (#148), Derrel Curtis (#274), and one illegible signature (#104).

100 - 1



January 31, 2002

Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, Utah 84701

#### TO WHOM IT MAY CONCERN:

This letter is in response to the environmental impact statement referring to the Ouitchupah Creek Road.

The cattle and livestock operators that depend on the usage of this canyon for their livelihood which they have done for several years, even before the Sufco Mine ever came into existance, was not given much consideration. The disregard for the cattle and livestock people was very evident right from the beginning of this EIP. On page 1-14 it states "issues not analysed in detail". Issue 1: It states that trucking cattle is not a viable option". The reasoning behind this statement was stated as "trucking cattle is a commonly used method in Utah to move cattle to and from summer ranges." This same scenario should also have been applied for the coal mines as well as trucking coal is a commonly used practice of moving their coal to markets throughout the state of Utah as well as the nation. So therefore, there was never a need for an EIP. The only difference between these to scenarios is that trucking cattle is not a commonly used practice in this area or any place else that I am aware of other than a few isolated cases. But every coal mine either transports their coal out either by truck or rail. This is a fact. Another fact is that Sufco Coal Mine will not be forced out of business if this road is not constructed as many ranchers may be forced out due to the building of this road. Cattle have been trailed to and from the summer range through this canyon for approximately 100 years. Long before there was even a mine in this canyon.

On page 3-131, the EIP states that 10 AUMS would be lost during construction. It also states that this is an insignificant loss of AUMS. I wonder to whom this would be an insignificant loss - to the person who wrote this EIP? To the Sufco Mine? I'll guarantee this loss is very significant to the people who depend on these AUMS for a living. The AUMS lost would be a lot more than projected in this EIP. In fact, if there are no fencing or trailways provided and maintained, it could force the cattlemen clear out of business as they could not stand the losses of the coal truck/livestock collisions that will surely result in the construction of such a road.

Never once did I read where Sufco would be responsible for any type of compensation to the ranchers for their losses and extra expenses that would burden these

#### Response 100-1

A fenced livestock trail would be constructed along 1.5 miles of the western portion of the proposed road where topography limits free trailing movement. East of this area, livestock would trail outside of the fenced road corridor.

#### Response 100-2

The net loss of AUMS is 4 under Alternative B, 4 under Alternative C, and 5 under Alternative D. In addition, 5 AUMs would be lost under all build alternatives due to 4.7 miles of riparian fencing along Quitchupah Creek. See Section 3.8 for additional information.

#### Response 100-3

The Sevier County Special Service District would provide loading/unloading/holding facilities for the ranchers trailing livestock along Quitchupah Creek and in Convulsion Canyon. The compensation for livestock involved in collisions with coal trucks or other vehicles would be guided by the Utah State open range law. See Section 3.8 of the FEIS.

100-3

QUITCHUP	AH CREEK ROAD FEIS	Public Comments & Responses
Letter #100 cont.		
100-3 Cont.	ranchers due to the building of this road. Not only would the construction of this road cost the ranchers a lot of increased expenses but also would make their ranches go down in value. Again proving that this EIP was not giving the cattlemen/livestock people much consideration at all.  On page 3-82 it states that "cattle trailing and gathering around lower Water Hollow Creek would need to be scheduled for weekends when coal hauling is not scheduled." It is necessary for the cattle to water at this point daily. And since the new proposed road will go right up the only trail into water which is currently being used by the cattle and wildlife, they would virtually be eliminated from accessing the only water water.	Response 100-4 See Response 100-1. As described in Section 3.8, there would be specific areas for livestock to water along Quitchupah Creek. Water would be
100-5	source in the area for animals utilizing the Water Hollow benches.  Also on page 3-82, it states that "much of the proposed route through the Saleratus allotment is in rugged terrain where there is little use of forage by cattle". The EIP statement failed to state, or I missed it, that the proposed road runs right through several acres of land that the BLM removed all the pinions and cedar trees off of and reseeded this ground with new grasses. It is now established and utilized by the cattle	trucked up to the allotments on the Water Hollow and Saleratus Benches where the road has bisected the allotment, separating it from the water source.
100-6	and wildlife.  On page 2-23 the EIP states that the coal hauling would increase the noise level from faint to moderate in the town of Emery. Apparently the people who wrote this EIP doesn't live on Highway 10 that runs through the town of Emery. And its apparent that they never talked to anyone that does. How would they like to live right next to a road that will have several hundred loaded coal trucks rolling past their homes day and night? Not only is the noise very bad but the vibrations that these heavy trucks produce could also cause homes a lot of damage. I don't believe that anyone business should have the right to ruin other peoples business or their lives without any thought of compensation or	Response 100-5 The road alignment for Alt. D traverses the more rugged portions of Saleratus Bench and about 25 acres of the seeding on Water Hollow Bench. There are several areas that could be seeded to compensate for the AUMs lost by road construction.  Response 100-6 With the contracts at Hunter Power Plant, a two to three fold increase in
	respect. I'm sure that this letter will be put with the rest and given the same consideration as the ranches/livestockmen and everyone else who presently utilizes this beautiful and beneficial canyon.  Sincerely,	coal transport has already occurred in the Town of Emery (see Transportation 3.15). There would be no increase in coal truck traffic in Emery as a result of the proposed road.
	Randy M. Anderson	Noise produced from coal trucks is an episodic event. Noise measurement taken in the Town of Emery resulted in a Slow-A noise level of 56 dBA (typical of small rural towns). Using the Federal Highway Administration subjective classification, the noise level will likely increase to a Slow A of between 60 to 74 dBA. This is classified by FHWA to be moderate sound impact. Noise is measured in logarithmic scale, so a noise increase near 3 times current levels was estimated.
		Vibration from the coal trucks was experienced by the noise sampling technician. Seismic analyses were not part of this study. Sound pressure levels were discussed and resulted in the assumption that sound pressure would double at a distance of 200 meters away from the transport road.
	(100)	





Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, Utah 84701

VIA FACSIMILE: (435) 896-9347 and mail

RE: Comments on Proposal to Upgrade Quitchupah Creek Road

Dear Ms. Jackson:

The following constitutes Forest Guardians' comments on the proposed project named above. Forest Guardians and it's members have strong concerns over projects that have potential to effect water quality on rivers and streams, especially those found in National Forests. Our membership regularly visits and recreates on and around these sensitive waterbodies, and therefore we appreciate the opportunity to participate in the public comment process for this project.

#### STATE CLASSSIFICATION OF THE WATER

According to Utah's Water Quality Standards (Rule R317-2. Et seq., Standards of Quality for Waters of the State), the segment of Quitchupah Creek which directly parallels the road proposed for construction here, is a High Quality Water, Category I. This category of surface water is defined in R317-2-12.1 as follows: "All surface waters geographically located within the outer boundaries of U.S. National Forests whether on public or private lands with the following exceptions: All High Quality Waters - Category 2 as listed in R317-2-12.2. Weber River, a tributary to the Great Salt Lake, in the Weber River Drainage from Uintah to Mountain Green," Since Ouitchupah Creek is located in the Fishlake National Forest and is not listed as a Category II High Quality Water, it is a Category I High Quality Water for purposes of the State's Water Quality Standards.

The directly downstream segement of Quitchupah Creek is listed on the State of Utah's Year 2000 303(d) list as impaired for Total Dissolved Sloids (TDS). There is currently no TMDL in place for this segemnt of Quitchupah Creek.

#### 11 ANTIDEGRADATION POLICY

303(d) Listed Waters (Tier I):

As noted above, segments of Quitchupah Creek downstream of the constrcution site are listed on the State of New Utah's Year 2000 303(d) list as impaired by the above-listed pollutants, and are therefore considered Tier I waters. The action proposed by your agency will allow for further degradation of streams that are already 303(d) listed as Water Quality Limited Segment (WQLS) streams for the pollutants listed above, in clear violation of the Clean Water Act and the State's antidegradation policy. WQLS designation clearly and absolutely prohibits any further degradation of stream quality and impairment of designated uses. 40 CFR 131.12(a)(1). Once a waterway is designated as a WOLS, a Total Maximum Daily Load (TMDL) must be developed and implemented to address the sources of pollution which cause the water to be so listed. 33 U.S.C 1313(d). There are no TMDLs for these waters (with the exception of Rio de las Vacas for temperature) and road construction has the potential to contribute significant pollution to it and further impair its designated uses; therefore it may not be allowed to further degrade the water quality of this already impaired stream/river and may not be authorized until a TMDL is developed and this action is properly accounted for in the TMDL. Ibid.

312 Montezuma, Suite A ▼ Santa Fe, New Mexico 87501 ▼ 505-988-9126 ▼ Facsimile 505-989-8623 www.fguardians.org ▼ swwild@fguardians.org (102)

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See next page

6-69

102-1 cont.

The antidegradation policy precludes further discharges of loads of pollutants for which the waterbody is water quality limited in the absence of an implemented plan to bring the waterbody into conformance with the standard (a Total Maximum Daily Load or TMDL). This is because the uses are by definition not fully supported if the numeric criterion has been violated and the water has been deemed "water quality limited" and subsequently 303(d) listed. 303(d) listing means that the waterbody is not achieving Tier I status, which is the absolute floor of water quality standards (the so-called "fishable/swimmable" use), below which a State cannot let water quality fall. When the receiving stream is water quality limited, no additional pollutant loads can be allowed unless there are other loads of the same pollutants which are being reduced sufficient to leave assimilative capacity available for use, a determination that is made during development of a TMDL. Absent TMDL development or other similar formal analysis of the effects of your proposed activity on this impaired water, you cannot begin this project and still comply with § 303 of the CWA. Application of the anti-degradation policy is especially important where discharge is to 303(d) listed waters that are already so polluted that they are formally recognized by the State as such, as is the case for these waters.

#### ONRW's (Tier III):

According to the State's antidegradation policy, "Waters of high quality which have been determined by the Board to be of exceptional recreational or ecological significance or have been determined to be a State or National resource requiring protection shall be maintained at existing high quality through designation, by the Board after public hearing, as High Quality Waters - Category 1. New point source discharges of wastewater treated or otherwise, are prohibited in such segments after the effective date of designation. Protection of such segments from pathogens in diffuse, underground sources is covered in R317-5 and R317-7 and the Regulations for Individual Wastewater Disposal Systems (R317-501 through R317-515). Other diffuse sources (nonpoint sources) of wastes shall be controlled to the extent feasible through implementation of best management practices or regulatory programs. Projects such as, but not limited to, construction of dams or roads will be considered where pollution will result only during the actual construction activity, and where best management practices will be employed to minimize pollution effects". The construction and upgrade of the Quitchupah Creek Road that you have proposed obviously falls into the category of activities of "construction of roads" that may not occuur absent proof that the construction will only effect water quality during construction and not after. You therefore must provide these assurances before moving forward with the proposal.

#### III. SECTION 313 OF THE CLEAN WATER ACT

Under section 313 of the CWA, federal agencies are responsible for compliance with all State requirements for water pollution control, including a State's antidegradation policies: "Each department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal Government...shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution..." 33 U.S.C §1323(a). Courts have also found the CWA to be directly applicable to National Forest activities like road construction and maintenance, where the Forest Service must comply with State water quality standards when permitting activities on National Forest lands. See Marble Mountain Audubon Society v. Rice, 914 F.2d 179, 182 (9<sup>th</sup> Cir. 1990); Northwest Indian Cemetery Protective Assn v. Peterson, 795 F.2d 688 (9<sup>th</sup> Cir. 1986), accord Oregon Natural Resources. Council v. U.S. Forest Service, 832 F.2d 1489 (9<sup>th</sup> Cir. 1986) Cir. 1987.

CWA \$303 places directly on Federal agencies the responsibility to comply with all federal, state, and local requirements for water pollution control and it explicitly applies to "tunoff" as well as "discharge" of pollutants. As noted by the court in the ONDA v. Dombeck (151 F.3d 945, 9th Cir. 1998) decision, section 313 "plainly applies to nonpoint sources on Federal land." And, "State standards adopted pursuant to \$ 303 are among the "other limitations" with which a State may ensure compliance through the \$ 401 certification process. 33 U.S.C 1341 (d). Although \$ 303 is not specifically listed in \$ 401(d), the statute allows States to impose limitations to ensure compliance with \$ 301 of the Act, and \$ 301 in turn incorporates \$ 303 by reference. EPA's view supports this interpretation. Such limitations are also permitted by \$ 401(d)"s reference to "any other appropriate" state law requirement."

PUD No. 1 of Jefferson County v. Washington Department of Ecology, 114 S.Ct. 1900 (1994).

#### Response 102-1

The State of Utah does not follow EPA=s Tier nomenclature, although it does have an antidegradation policy, contained at R317-2-3. To reflect this policy, as it applies to the proposed project, a statement has been added to Chapter 3 of the Final EIS in order to indicate that the approximately 2.5mile stretch of Convulsion Canyon Creek that parallels the proposed road within the boundaries of the Fishlake National Forest is categorized by the State of Utah as a ACategory 1 High Quality Water@ as defined at R317-2-12.1 in the Utah Water Quality Standards. The fact that the segment of Quitchupah Creek downstream of the proposed project is on the State of Utah=s Year 2000 303(d) list was reported previously in the Draft EIS. The implications of the Quitchupah Creek reach downstream of the project having a 303(d) listing and the uppermost part of Quitchupah Creek within the project area being a Category 1 stream have been expanded upon in the Final EIS. Potential temporary, construction related impacts are allowed to occur in streams with both these designations, as permitted and regulated through the Utah Division of Water Quality=s storm water permit program.



102-1cont.

Therefore, before this project is undertaken, your agency must ensure that no degradation of this high quality water will occur, including but not limited to non-point source pollutants, or risk running afoul of the CWA's clear legal requirements.

#### IV. SECTION 401 OF THE CLEAN WATER ACT

States are required by CWA § 401 to provide a water quality certification before a federal license or permit can be issued for any activity that may result in a discharge into navigable waters. 33 U.S.C § 1341. The certification must "set forth any effluent limitations...necessary to assure that any applicant" will comply with various provisions of the Act and "any other appropriate" state law requirement. Ibid at (d). This is an affirmative duty imposed on the State by the CWA, and clearly any action undertaken by a Federal agency must have an accompanying State 401 certification before the Federal agency can begin the activity. The antidegradation policy of the State, as mandated by the CWA, requires the State to impose conditions or limitations when issuing the certification that provide the proper level of protection to the water and thereby prevent lowering of water quality and protect designated uses.

EPA's regulations implementing this section of the CWA likewise require the State to complete § 401 certification. When doing so, State are required to find that "there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards." 40 CFR § 121.2(a)(3).

Because a Federal license or permit is required before this activity can take place on National Forest land, and because the activity will result in discharges to Mammoth Creek, your agency is required to obtain State certification of the activity pursuant to § 401 of the CWA, 33 U.S.C § 1341.

#### V ENDANGERED SPECIES ACT

The purpose of the Endangered Species Act (ESA) is to "provide a program for the conservation of...endangered species and threatened species" and to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." 16 U.S.C. § 1531(b). The overarching policy of the ESA is that all federal departments and agencies must use their authorities to conserve species that the Secretary of Interior or Commerce lists as threatened or endangered. 16 U.S.C. § 1531(c)(1). The terms "conserve" and "conservation" are defined as "to use and the use of all methods and procedures which are necessary to bring any endangered species to the point at which the measures provided pursuant to this chapter are no longer necessary." 16 U.S.C. § 1532(3).

Section 7 of the ESA enumerates the substantive and procedural obligations of federal agencies with respect to listed species. 16 U.S.C. § 1536. First, all federal agencies are under an affirmative duty to use their authorities in consultation with the Secretary of Interior or Commerce to conserve listed species. Second, all federal agencies are under an obligation to insure that "any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat of such species...." 16 U.S.C. § 1536(a)(2). In meeting this duty to prevent jeopardy, each agency is required to use the best scientifically and commercially available data. *Id.* 

Whenever an "action agency" determines that a proposed action may affect one or more listed species, it must consult with the National Marine Fisheries Service (NMFS) and/or the Fish and Wildlife Service (FWS), depending on the species present. 50 C.F.R. § 402.14(a). The relevant agency must then prepare a formal Biological Opinion discussing the effects of the proposed action on the listed species or critical habitat. 50 C.F.R. § 402.14(h). The Biological Opinion must include the Service's opinion on whether the action is likely to jeopardize the continued existence of any listed species or adversely modify any critical habitat. Id. If jeopardy or adverse modification is found, the relevant Service must suggest reasonable and prudent alternatives which it believes would avoid either of these outcomes. 16 U.S.C. § 1536(b). In the end, however, the action agency has an independent duty to ensure that its action will neither jeopardize any listed species nor adversely modify any critical habitat. 16 U.S.C. § 1536(b).

Pursuant to section 7(a)(2) of the ESA (16 U.S.C. 1656 et seq.), federal agencies must initiate consultation with the FWS and assure that their actions are unlikely to jeopardize the continued existence of listed threatened or

# (102)

#### Response 102-2

Consultation with the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act was completed. The results of the consultation are included in Chapter 3 of the FEIS and the concurrence with the determinations of the BA is found in Appendix G. The subspecies of the southwest willow flycatcher in the project area is not the listed subspecies. See Section 3.7 of the FEIS.

102-2 cont.

endangered species or adversely affect designated critical habitat of such species. Several endangered or threatened birds, mammals, amphibians and reptiles are fully or partially dependent upon Quitchupah Creek's aquatic habitat and riparian area.

Section 7(a)(1) of the ESA requires all federal agencies to use their authorities in consultation with the Secretary of Interior or Commerce to further the goals of the ESA by developing and implementing programs for the conservation of endangered and threatened species. 16 U.S.C. § 1536(a)(1). The program must be species-specific, addressing the biological requirements of each individually-listed species. Further, the program must aim towards achieving the eventual recovery of threatened aquatic species in Utah. Section 7(a)(1) therefore imposes a separate (from § 7(a)(2)), mandatory duty on the Forest Service to consult with FWS on the development and implementation of a species-specific conservation plan.

#### VI. CONCLUSION

While we are aware that the proposed project has the potential to have beneficial effects to Quitchupah Creek, we write these comments to serve as a reminder to your agency as to what your legal obligations are in order to ensure that the very real potential negative effects are properly accounted for before undertaking this project.

Since segements of Quitchupah Creek are in the highest classification of waters in the State of Utah, and others are 303(d) listed as impaired for TDS, they must receive the highest level of protection. The State's antidegradation policy does not allow for any but the slightest degradation of high quality waters or low quality watres, and this policy applies to your agency through CWA section 313. Likewise, your agency must apply for and obtain a CWA section 401 certification from the State before this project can be approved and undertaken, where you must delineate the steps you will take to avoid degradation of this pristine water.

Again, we appreciate the opportunity to comment on this project, and wish to be kept informed of future projects, especially those that have the potential to effect surface waters. Thank you for your time in considering our comments, which speak not only for our organization, but also for our membership.

Sincerely.

Scott C. Cameron Clean Water Coordinator Forest Guardians

107-1



PO 80x 756 \* 1384 West 1955 North \* Price, Utah 84501 PH# 435-637-5711 \* FAX# 435-637-5716

2002

y C. Erickson est Supervisor SDA Forest Service fishlake National Forest

RE: Quitchupah Creek Road EIS

Dear Ms. Erickson:

As a business owner located in Price, Ut. I frequently travel to the Sufco mine. I support the construction of the Quitchupah Creek Road for the following reasons:

- 1. It will provide a shorter route from Price to the mine site thus saving time and fuel.
- Create a lower probability of accidents with passenger cars by reducing traffic on I-70 and the Accord Lakes road.
- 3. Saves wear and tear on existing highways.
- 4. Provides alternative route from Price, and Emery County to the Salina area.
- Employment opportunities at the Sufco Mine would be more appealing to Carbon and Emery County residents.

I would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.

Sincerely

Dayly J

Douglas J Simkins

(107)

Response 107-1
Comments noted.

FISHLAVE NO PROPERTY OF THE PAGE NO PAGE NO PROPERTY OF THE PAGE NO PA				X ROAD FEIS	• • •	Letter #108-146,
	0 would wer Plant ther	O Mine and Highway 10 of coal to the Hunter Power tial for accidents with oth We are in favor of the with the Alternative D alignment of the state o	on for the hauling of ald reduce the potent rucks hauling coal. V nupah Creek Road w	Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701 RE: Quitchupah Creek Road EIS Dear Ms. Erickson: The development of a shorter roureduce the time and fuel consumy and Wellington. In addition, it wentorists using the same roads as construction of the proposed Quiour preference. Thank you for your considration construction of the Quitchupah Construction of the Qui		<b>150-179</b> 108-1
Address:  Croix Paper  210 S. 200 W.  Centertield, Ut. 84622			2	Chair Lane		

## Response 108-1

Comments noted.

This letter also received from: Kirk Kirman, Dan S. Chidester, Kelly Crofts, Jerry Lopshire, Brandon Griffith, Beth Hammond, Leo Averett, Steven J. Jensen, Brett Shaw, Shay Fielding, Andy Rasmussen, Dave Holman, Dave Roberts, Caroline Sewfad, Boyd Bizllow, Bert Rasmusen, Reese Summarell, Leslie Gramse, Bill E. Anderson, Dirk Christiansen, Richard Zufelt, Jerrad Jensen, Jeff Kouns, Travis Otten, Ryan Rickenbach, Odis Bess, Dustin Sudweeks, Gary Nielsen, Jody Borwn, Cameron Hallows, Greg R. Larsen, Shon Spencer, Dan Cook, Terry Hansen, Charles Ogden, Kade Mickelson, Brian A. Menmonatt, Richard Phillips, Wesley Burr, Bronson Hallows, Ray Price, Ned J. Grace, Lance Christensen, Shane Elmer, Craig A. Williams, Skip D. Brown, Lucinda P. Hess, Cal Phillips, Rick Johnson, Owen B. Hunt, Wilford L. Nielson, Jared Johnson, Ryan Colby, Joe Mickelson, Jebb Heaps, Steven Grundy, Dale P. Brown, Rusty Healey, Jonathan Taylor, Troy Fielding, Kenny McEown, Michael J. Kailey Jr., Norman R. Hutchings, Jef Lampulot, Richard Mickelsen, Brock Robinson, Rodney Hall, Paul Caldwell, Jay C. Minor, Mark T. Mortensen, Jan Quarnberg, Arvin Billings, Kenny Teepler, Shawn Munk, Zane Vincent, Patrick Sullivan, Ronald Dommich, Richard K. Wright, Ryan Tobler, Wayne L. Anderson, and Mark A. Hansen.



147-1

## SOUTHEASTERN UTAH OFF-HIGHWAY VEHICLE CLUB P.O. BOX 382 CASTLE DALE, UTAH 84513 (435) 381-2493 alkali@etv.net www.seuohvclub.org

02-04-02

Linda L. Jackson **Public Affairs Officer** Fishlake National Forest 115 East 900 North Richfield, Utah 84701

Re: Quitchupah Creek Road DEIS

Ms. Jackson,

The SouthEastern Utah Off-Highway Vehicle (SEUOHV) club would like to provide you with our official comments on your DEIS for the Quitchupah Creek Road project.

In our original comments provided to you during 1999, we asked for an OHV trail to be constructed parallel to the road project in order to provide continued access for non highway licensed vehicles. While we disagree with your reasons for refusing to pursue this parallel route we realize that we are powerless to change your opinion.

Therefore the SEUOHV club finds itself in a position of having to support the Water Hollow Alternative "D" which we find to be the lesser of all evils. We feel that Alternative "D" would best protect the priceless archaeological sites found throughout the project area. Alternative "D" would also provide the most protection for the rugged roadway which is of great value to OHV recreationists. The existing dirt road may not be recognized as an official OHV route by the land managers today, but as long as the road is not destroyed we have a chance for it's recognition in the future. If this proposed road construction project destroys the existing dirt road then OHV access will be lost forever just as the archaeological sites would be lost. Sincerely,

Alan J. Peterson SEUOHV board member

## Response 147-1

A designated ATV trail would not be possible should Alternatives B, Quitchupah Creek Road, or Alternative C, Alternate Junction, be selected. The portions of the existing road not included within the construction of the proposed road would be reclaimed to help control sediment release to Quitchupah Creek. The reclaimed portions of the existing road would not be contiguous so travel would no longer be possible under Alternative B or C. Should Alternative D, Water Hollow Route, be selected then the existing road would not be blocked and would remain open for use from SR-10 to the forest boundary where the proposed road would block access to upper Convulsion Canyon. SEUOHV=s concern about the archaeological sites is noted.

QUITCHICHIN	H CREEK ROAD FEIS	Public Comments & Responses
Letter #149	Morgantown Machine & Hydraulics of Ut. Inc.	
	Box 176H • Highway 50 & 6 Helper. UT 84526 Phone: (435) 472-3452 • Fax: (435) 472-8779	
149-1	Feb. 6, 2002  Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest  RE: Quitchupah Creek Road EIS  Dear Ms. Erickson:  As a business owner located in Price, Ut. I frequently travel to the Sufco mine. I support the construction of the Quitchupah Creek Road for the following reasons:  1. It will provide a shorter route from Price to the mine site thus saving time and fuel.  2. Create a lower probability of accidents with passenger cars by reducing traffic on 1-70 and the Accord Lakes road.  3. Saves wear and tear on existing highways.  4. Provides alternative route from Price, and Emery County to the Salina area.  5. Employment opportunities at the Sufco Mine would be more appealing to Carbon and Emery County residents.  I would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.  Sincerely,  Jan. 149	Response 149-1 Comments noted.

Letter #180-267, 277-298. 304-336, . 2002 January 339 Mary C. Erickson Forest Supervisor **USDA** Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701 Response 180-1 RE: Quitchupah Creek Road EIS Comments noted Dear Ms. Erickson: Although, the construction of the Quitchupah Creek Road would not effect my current route to work, it does have the potential to relieve some of the congestion on the Acord Lakes Road. In addition, the road would provide an alternative route for emergency 180 - 1vehicles and an alternative route from the SUFCO mine if there were an emergency or accident on the Acord Lakes Road. As an employee at the SUFCO mine, I appreciate the advantages the construction of this road would provide and am in favor of the development of the Quitchupah Creek Road (Alternative D). Thank you for your time and consideration of this letter. Address

This letter also signed by: Matthew C. Long, Danny H. Albrecht, Glen Lois, Jana Roberts, Jon DeLange, Gladys Snyder, Jerry Adams, A. Quay Mecham, Gary Leaming, Brian Dumas, Fred Veater, Ellis LeNay, Fred McCoard, Audie Ekker, Fred St. Prince, Troy L. Hatch, Brad Duffni, Scott Stevart, Jeffrey D. Anderson, Boyd Kennedy, Steve M. Otto, Tom Dano, Justin Marsh, Ellis Peterson, Von D. Olsen, Paul H. Erickson, Glen A. Lewis, Kyle Meacham, Troy Jensen, Gordon Oldroyd, Stephen L. Hansen, Jill White, Jeff B. John, Fred L Rosquist, David Hill, Brent Mellor, Mary Ann Hatch, Ronnie J. Torgerson, Jody K. Malmgren, Paul Bowen, James A. Randles, Gordon S. Johnson, Royal Reed Jensen, Michael Davis, Steven K. Nielson, Joe Heath, Stan Adam, Jason Peterson, Shirece C. Owens, Carrie Brotherson, Trent Hone, John S. Jones, Terry Abraham, Mark M. Stapel, Mark E. Chatson, Dennis Patterson, Graig H. Ogden, Randy Young, Thayne Larsen, Dick A. Bills, John M. Black, Brian Fredrickson, Boyd Jewkes, Michael L. Davis, Bob Dickinson, Dana L. Sorenson, Ray Farrington, Melvin Yardley, Royce A. Mason, Robert Dickinson, Glen D. Hunt, Richard M. Smith, Ken Buckland, Jimmy L. Hanson, Dwayne K. Brown, Clay C. Jalt, Scott Gates, Glen Peters, Daryl Bagley, Douglas C Harward, Sam Brown, Shane Kit, Russel Mason, Donald R. Ervine, Shannon Heaps, Glade Foatz, David C. Edwards, Mark Allen, Brent Fairbanks, Mark C. Jensen, Casey Allred, Albert Rogers, Edward S. Maelen, Bill Anderson, Kevin Hooky, Mike Jensen, Mike Allred, Tyler Minchey, Arty Balatas, Gale Kesler, Joseph R. Dak, Jeff Noyes, Blake W. Sorensen, Clint C. Ellner, Guy Allred, Adam L. Guymon, Lynn Hansen, Cash Veater, Louis Vanderherp, Dan R. Young, Caroline F. Clayton, Kent Worthington, and several illegible

Letter #276	
	Long
	401 N. Carbonville Road • P.O. Box 9 February 5, 2002
	Mary C. Erickson
	Forest Supervisor
	USDA Forest Service
	Fishlake National Forest
	115 East 900 North
	Richfield, UT 84701
	RE: Quitchupah Creek Road
	Dear Ms. Erickson:
	As part of my business, my support the construction of t
	It will provide a sho Acord Lakes area the
276-1	Create a lower proba on I-70 and the Acor
	<ol> <li>Saves wear and tear</li> </ol>

GWALL **WEST, INC.** 

73 Price, Utah 84501 • (435) 637-5002 • E-mail: longwall@afnetinc.com

EIS

imployees and I frequently travel to the SUFCO Mine. I he Quitchupah Creek Road for the following reasons:

- rter route from Emery County to the SUFCO Mine and the s saving time and fuel;
- bility of accidents with passenger vehicles by reducing traffic Lakes Road;
- on existing highways;
- 4) Provides alternative routes from Emery County to the Salina area, and;
- 5) Employment opportunities at the SUFCO Mine would be more appealing to Carbon and Emery residents.

We would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.

Kent D. Shiner, President

Response 276-1 Comments noted.



337-1



JANUARY 30, 2002

MARY C. ERICKSON FOREST SUPERVISOR USDA FOREST SERVICE FISHLAKE NATIONAL FOREST 115 EAST 900 NORTH RICHFIELD, UTAH 84701

RE: QUITCHUPAH CREEK ROAD EIS

DEAR MS. ERICKSON:

AS PART OF MY BUSINESS, I FREQUENTLY TRAVEL TO THE SUFCO MINE. I SUPPORT THE CONSTRUCTION OF THE QUITCHUPAH CREEK ROAD FOR THE FOLLOWING REASONS:

- IT WILL PROVIDE A SHORTER ROUTE FROM EMERY COUNTY TO THE SUFCO MINE AND THE ACORD LAKES AREA THUS SAVING TIME AND FUEL;
- CREATE A LOWER PROBABILITY OF ACCIDENTS WITH PASSENGER VEHICLES BY REDUCING TRAFFIC ON I-70 AND THE ACORD LAKES ROAD;
- SAVES WEAR AND TEAR ON EXISTING HIGHWAYS: 3.
- PROVIDES ALTERNATIVE ROUTE FROM EMERY COUNTY TO THE SALINA AREA;
- EMPLOYMENT OPPORTUNITIES AT THE SUFCO MINE WOULD BE MORE APPEALING TO CARBON AND EMERY RESIDENTS.

WE WOULD APPRECIATE YOUR CONSIDERATION AND APPROVAL OF THE PROPOSED QUITCHUPAH CREEK ROAD SPECIFICALLY WATER HOLLOW. ALTERNATIVE D.

PRESIDENT

Response 337-1

Comments noted.

P.O. Box 340 Qrangeville, Utah 84537

FAX: (801) 748-2089

FISHLAKE NATIONAL PORESTEIL Phone: (801) 748-2828

RECEIVED

FED 1 1 2002

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QUITCHUPAH (	CREEK ROAD FEIS	Public Comments & Responses
Letter #338	Mine Productivity Systems and Equipment	
	PO Box 973, Price, UT 84501 Feb. 5, 2002 Fr. M. Wilson Co., Inc. Box 6274 3434 Market Street Writevelley, West Trignia 26003	
	Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701  FISHLAKE NATIONAL FROM Section 2  FISHLAKE NATIONAL FROM	
	RE: Quitchupah Creek Road EIS  RED LE	
	Dear Ms. Erickson:	
	As part of my business, I frequently travel to the SUFCO mine. I support the construction of the Quitchupah Creek Road for the following reasons:	
338-1		ponse 338-1 nments noted.
	We at RM Wilson Co. would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.	
	Sincerely,  Jud John  Jud Siekmann  Western Sales Manager  JUD SIEKMANN  Western Sales Manager  Mine Productivity Systems and Equipment	
	PC Box 973 Homs 455477-5061 401 N. Centronville Rd. Fa-845877-6183 Price, Utah 84501 Cell 801/368-3675 435/537-6950 Phone 1-800/624-5460	
	338	

#### QUITCHUPAH CREEK ROAD FEIS Letter FISHLAME NATIONAL FOREST #342 RECEIVED FEB 1 4 2002 . AO\_ B&F\_ FIRE GIS\_ PAJ. HR\_ PANGE SEC\_ LE 7.35R PURCH. VISHO. RES\_ P.O. Box 1626 • South of Price • Price, Utah 84501 • Telephone (435) 637-7291 • Fax (435) 63901663 February 8, 2002 Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701 RE: Quitchupah Creek Road EIS Dear Ms. Erickson, There are many positive reasons for granting the proposed annex for the Southern Utah Fuels Company (SUFCO) mining operations. First this will enable people who have been out of work from Carbon and Emery counties to seek employment. Next, the completion of the roadway will also keep the tandem trucks off of Interstate 70 which many visitors to our state 342-1 travel on. Also, the distance traveled to the mine site will be reduced saving wear and tear on vehicles, quicker service times, and less congestion. The main purpose of granting the construction of the Quitchupah Creek Road - Alternative D is for coal haulage. However, this road would not be closed to the public and they would be able to enjoy new scenery. We appreciate your consideration of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D. Sincerely, Anthony Martines

Accounts Manager

Response 342-1

Comment noted. See Section 3.14 Transportation. The proposed road would remove coal truck traffic from the SUFCO Mine on I-70 east to Fremont Junction and on SR-10 north to Quitchupah Creek Bridge.

## Letter FISHLAKE NATIONAL POREST RECEIVED #343 FEB 1 4 2002 B&F\_ GIS\_ PURCH\_ P.O. Box 1626 • South of Price • Price, Utah 84501 • Telephone (435) 63475291 • Fax (435) 637-466 COMES SENT TO. REMARKS:.. February 6th, 2002 Mary C. Erickson Forest Supervisor USDA Forest Service Fish Lake National Forest 115 East 900 North Richfield, Utah Ms. Erickson: As an Account Manager for Tram Electric, SUFCO mine is one of my sales accounts. I travel to SUFCO every Monday which means a 200 mile round trip. This also means traveling Salina Canyon during the winter months which we all know can be an adventure. I strongly support the proposed Quitchupah Creek, Water Hollow, alternative D road. This would help minimize the safety concern of not driving Salina Canyon as well as Response 343-1 343-1 Comments noted. allowing us to service this customer more effectively and efficiently in reducing the time and money now being spent. Sincerely Ronnie A. Jewkes Account Manager

## Letter FISHLAKE NATIONAL FOREST RECEIVED #344 FER 1 4 2002 RANGE. REC\_ TIMBER. WTSHD. 6277291 · Fax (425) 637-466 P.O. Box 1626 · South of Price · Price, Utah 84501 · Telephone (435) COPIES SENT TO. MARKS: February 8, 2002 Mary C. Erickson Forest Supervisor USDA Forest Service Fish Lake National Forest 115 East 900 North Richfield, Utah Dear Ms. Erickson, Our facility travels to SUFCO mine several times a week. I beleive that the shorter route from Emery county would benefit every vendor that services SUFCO mine, with less fuel Response 344-1 cost, labor costs and wear and tear on vehicles. 344-1 Comments noted. This would also provide more versatile employment opportunities for the small communities in our area and an alternative route to the Salina area. I support the proposed Quitchupah Creek road specifically the Water Hollow, alternative $\boldsymbol{D}$ and would appreciate your consideration and approval. Sincerely. Robert McKendink Robert L. McKendrick Director of Operations

### Letter FISHLAKE NATIONAL FOREST #345 RECEIVED FEB 1 4 2002 B&F\_ GIS. HP\_ sHD. ENTRP. P.O. Box 1626 · South of Price · Price, Utah 84501 · Telephone (435) 637-72900PES-SENST 0-37-4663 February 08, 2002 Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, Ut. 84701 RE: Quitchpah Creek Road EIS Dear Ms. Erickson: As part of my duties as the Director of Sales and Marketing. I have a sales representative of Tram Electric Inc. visiting the Sufco mine at least once a week. I am also in charge of the fleet which involves all deliveries to this facility on a weekly basis. We stand to benefit greatly with the proposed Quitchupah Creek Road, specifically Water Hollow, Alternative This alternate route will greatly reduce the likeliness of an accident because of the elimination for the need to travel Response 345-1 345-1 Interstate 70, and also through the reduced miles. Comments noted. This route will enhance our profitability by decreasing our travel time to and from the Sufco mine. This greatly reduces $% \left( 1\right) =\left\{ 1\right\} =\left$ the wear and tear on the vehicles and allows a quicker response to our customers needs. I feel that the Quitchupah Road will benefit not only Tram Electric, but the entire area in the future by making the entire Salina area more accessable. I support the proposed Quitchupah Creek Road, specifically the Water Hollow, alternative D and would appreciate your consideration for approval. arole Mostinger Cardell Mortensen Director of Sales and Marketing

## Letter FISHLAKE NATIONAL POREST #346 RECEIVED FEB 1 4 2002 BANG P.O. Box 1626 • South of Price • Price, Utah 84501 • Telephone (435) 637-7291851 PX 043 February 8. 2002 Mary C. Erickson Forest Supervisor U.S. Department of Agriculture Fishlake National Forest 115 East. 900 North Richfield, Utah, 84701 Re: Quitchupah Creek Road EIS Dear Ms. Erickson: As Director of Technical Services here at Tram Electric Inc., I as well as many members of our staff travel to the SUFCO mine very frequently in response to customer service needs, technical assistance, electrical apparatus repair and the For obvious economic reasons, we would favor the construction of the proposed Quitchupah Creek Road as it would shorten the distance and thus our response time to a highly valued customer. As we respond to calls 24 hours a day, it would also lower the probability of accidents with passenger vehicles that travel I-70 and the Acord lakes road. It would also provide an alternative route to Salina from the Emery County road Highway 10. saving wear and tear on the existing highway 10 as well as the interstate. The construction of this road could heighten the employment Response 346-1 346-1 opportunities for people from our Carbon and Emery county Comments noted. areas at the Sufco Mine. We therefore support the construction of this road, and would appreciate your consideration for the approval of the proposed Quitchupah Creek Road, specifically Water Hollow, Alternative D. Sincerely. Tram Electric Inc. K.R. Robb - Director of Technical Services

347-1



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OPTION SENT TO\_

P.O. Box 1626 • South of Price • Price, Utah 84501 • Telephone (435) 637 291 • Fax (435) 637 663

February 09, 2002

Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, Utah 84701

RE: Quitchupah Creek Road EIS

Dear Ms. Erickson,

Being located in the center of Utah's coal mining and in traveling great distances on a daily basis over the last 20 years, I was extremely excited to here about the possibilities of a new access to Southern Utah Fuel through Water Hollow. We have traveled highway 10 and interstate 70 many times through all kinds of weather in day or night. With each trip we eagerly await the verified return of our representative from their trip and require up dates and calls from them until their return. Due to the length of time to complete this trip and return, the cost to provide our service has been immense. With the new access I feel that this issue and as well as the following would benefit not only our company, but also all of us in southeastern Utah.

- 1. Reduced time on the highway would lessen potential highway accidents caused by fatigue.
- Increasing efficiency and profit at Sufco through better response times by vendors, would provide increased support from Sufco for these vendors.
- The construction would also aid in allowing Carbon and Emery county miners a better opportunity for employment at SUFCO. I believe the shorter distance would decrease potential absenteeism, increase individual production, thus helping develop a better work image for our miners.
- 4. Increasing overheard costs, mounting pressure for profits, and the ever changing technologies in mining has placed a larger demand for better trained employees. These higher costs as well as increased investment in test and production equipment have placed a huge financial burden on our company. It is imperative for us to continue being a viable vendor for our customers. The only way we can accomplish this is to take advantage of any and all situations that might add profits to our bottom line. We feel this is one of those opportunities.

It is with deep appreciation and sincerity that I request a positive consideration of the approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.

David L. Zaccaria

(343

Response 347-1

Comments noted

348-1





P.O. Box 1626 • South of Price • Price, Utah 84501 • Telephone (435) 637-234ARIGN (435) 637-4663 February 8, 2002

Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701

RE: Quitchupah Creek Road EIS

Dear Ms. Erickson,

Our company representatives, from Tram Electric Inc. travel from Price Utah to the Sufco mine several times weekly, all year round. Top performing companies that apply best practices invest heavily in developing and improving customer satisfaction and work off a very small profit margin.

By understanding the driver of customer satisfaction, specific product and service characteristics that meet not only our customers needs, but small and large companies needs of our area, can focus on eliminating added fuel, vehicle wear, man hour costs, and reducing traffic on I-70 and the Acord Lakes Road with the probability of lowering accidents and essentially creating companies such as ours to, number one, deliver more safety, more customer value, and more company profit by reducing operating costs.

Our company and I support the construction of the Quitchupah Creek Road for the above reasons. Tram Electric Inc. would appreciate your consideration on the proposed Quitchupah Creek Road approval. Specifically Water Hollow, Alternative D.

If I can be of any assistance on the above subject, please feel free to contact me anytime.

Sincerely,

Tim L. Harper

General Manager/VP

Response 348-1 Comments noted.

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Letter	en 1970 de artimographico de la Contra de Artimo de Arti	
#350	January , 2002	
	January , 2002	
through		
#367	FEB 14 2022	
#307	Mary C. Erickson	
	Forest Supervisor	
	USDA Forest Service	
	Fishlake National Forest	
	115 East 900 North	
	115 East 900 Notiti	
	Richfield, UT 84701	
	RE: Quitchupah Creek Road EIS	
	, Commence of the commence of	
	Dear Ms, Erickson:	
	As part of my business, I frequently travel to the SUFCO mine. I support the	
	construction of the Quitchupah Creek Road for the following reasons:	
350-1	<ol> <li>It will provide a shorter route from Emery County to the SUFCO Mine and the</li> </ol>	Pagnanga 250 1
330-1	Acord Lakes area thus saving time and fuel:	Response 350-1
		Comments noted.
	Create a lower probability of accidents with passenger venicles by reducing traffic on I-70 and the Acord Lakes Road;	
	traffic on 1-70 and the Acold Lakes Road,	
	3. Saves wear and tear on existing highways;	
	Provides alternative route from Emery County to the Salina area, and	
	5. Employment opportunities at the SUFCO Mine would be more appealing to	
	Carbon and Emery County residents.	
	We would appreciate your consideration and approval of the proposed Quitchupah	
	Creek Road specifically Water Hollow, Alternative D.	
	Sincerely,	
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42 South Carbon Avenue P.O. Box 911 Price, Utah 84501 Phone (435) 637-5770 FAX (435) 637-9766

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Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701

February 13, 2002

RE: Quitchupah Creek Road EIS

Dear Ms. Erickson:

As part of my business, I frequently travel to the SUFCO mine. I support the construction of the Quitchupah Creek Road for the following reasons:

- It will provide a shorter route from Emery County to the SUFCO Mine and the Acord Lakes area thus saving time and fuel; Create a lower probability of accidents with passenger vehicles by reducing traffic on I-70 and the Acord Lakes Road.
- 2.
- Saves wear and tear on existing highways;
- Provides alternative route from Emery County to the Salina area, and
- Employment opportunities at the SUFCO Mine would be more appealing to Carbon and Emery County residents.

We would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.

Sincerely,

Julie A. Moretti

President

CUSTOM SUPPLY, INC.

Response 368-1

Comments noted.

## **QUITCHUPAH CREEK ROAD FEIS** Letter #369 Barclay Mechanical Services, Inc. 595 West 100 North Manti, UT 84642 435-835-5084 Toll Free 1-877-835-5084 THE W. WILLIAM THE February 7, 2002 Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, Utah 84701 RE: Quitchupah Creek Road EIS Dear Ms. Erickson: As part of my business, I frequently travel to the SUFCO mine. I support the construction of the Quitchupah Creek Road for the following reasons: It will provide a shorter route from Emery County to the SUFCO mine and the 369-1 Acord Lakes area thus saving time and fuel; Response 369-1 Create a lower probability of accidents with passenger vehicles by reducing Comments noted. traffic on I-70 and the Acord lakes Road; 3. Saves wear and tear on existing highways; Provides alternative route from Emery County to the Salina area, and Employment opportunities at the SUFCO mine would be more appealing to Carbon and Emery County residents. We would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D. Sincerely, Barclay Mechanical Services, Inc. Michael D. Barclay

370-1

## Barclay Mechanical Services, Inc.

595 West 100 North Manti, UT 84642 435-835-5084 Toll Free 1-877-835-5084

February 7, 2002

Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, Utah 84701

RE: Quitchupah Creek Road EIS

Dear Ms. Erickson:

As part of my business, I frequently travel to the SUFCO mine. I support the construction of the Quitchupah Creek Road for the following reasons:

- It will provide a shorter route from Emery County to the SUFCO mine and the Acord Lakes area thus saving time and fuel;
- Create a lower probability of accidents with passenger vehicles by reducing traffic on I-70 and the Acord lakes Road;
- Saves wear and tear on existing highways;
- Provides alternative route from Emery County to the Salina area, and Employment opportunities at the SUFCO mine would be more appealing to Carbon and Emery County residents.

We would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.

Sincerely,

Barclay Mechanical Services, Inc.

Lorin Sanders

Response 370-1 Comments noted.

371-1

371-2



## Utah Wildlife Federation Post Office Box 526367 Salt Lake City, Utah 84152-6367 Phone 801 487-1946

February 8, 2002

Ms. Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, UT 84701

Subject: Quitchupah Creek Road Project Draft Environmental Impact Statement (EIS)

Dear Ms. Jackson,

Thank you for providing us a copy of the EIS and for requesting our comments. Our detailed comments are provided on the attached pages.

In summary, we cannot support implementation of either Alternative B, C, or D. Regardless of which one of the three alternatives would be implemented, there would be a direct loss of wildlife habitat and high potential for losses of big game and other wildlife species due to wildlife and vehicle collisions. The alternatives do not provide compensation for those losses. The habitat and the wildlife species discussed in the EIS are publically owned and we believe the public deserves compensation for those losses.

Should you have any questions regarding our response, feel free to contact me at 435 882-2023. My fax number is 435 843-0486 and my email address is gerald@aros.net.

We thank you for the opportunity to comment on this important public lands management proposal.

Please keep us advised on the progress of this proposed project.

Sincerely

Chair, Habitat Committee

### Response 371-1

See Responses 411-3 (Federal) and 403-11. Potential impacts to wildlife and wildlife habitat are presented in Section 3.5 of the FEIS.

#### Response 371-2

Analysis of potential impacts to wildlife from vehicle collisions is included in the FEIS. Mitigation includes fencing of the road to exclude wildlife. Applicant committed measures include underpasses, fence crossings, and/or bridges to facilitate wildlife movement.

371

QUITCHUP	AH CREEK ROAD FEIS	Public Comments & Responses
Letter #371	; / ; /	
371-3	The EIS does not discuss any proposed action to offset the losses of wildlife habitat.  E. Will the proposed action contribute to the restoration of native fish and wildlife species to their historic habitat ranges?  Alternative B. No. Alternative C. No. Alternative D. No  Implementation of either of the three proposals will adversely affect wildlife movement to their historic ranges in various ways such as:  (1) Fencing the paved road (even though underpasses may be provided for wildlife movement, it is not natural for wildlife to use underpasses).  (2) The level of human activity will increase which will tend to discourage wildlife movement.  (3) Increased number of coal carrying vehicles and increases in the number of	Response 371-3 See Responses 411-3, 411-4, 411-25 (Federal), and 403-11. There are no sport fisheries in the Project Area. The wildlife section of the FEIS analyzes the impacts of fencing, increased activity, and wildlife/vehicle collisions (See Section 3.5). Fencing will generally preclude wildlife from the roadway and lessen wildlife/vehicle collisions. The Project would enable better access for hunting opportunities.
	visitor vehicles will increase noise levels. Such noise will discourage wildlife movement.  (4) The increase in motorized vehicles using the paved road will increase the potential for wildlife/vehicle collisions and wildlife losses.  F. Will the proposed action sustain, or create additional public hunting and fishing opportunities?  The answer to this question is no. As currently written, Proposals B, C, and D do not offer the opportunity for additional public hunting and/or fishing opportunities.  3. Conclusions.	Applicant committed measures have been included in the design of the three build alternatives to replace wetland and riparian habitats lost to road construction, to replace filled stream channels, and to seed big game winter range.
371-3	A. In reviewing the draft EIS we could not find any discussion that the loss of wildlife habitat and losses of wildlife would be compensated.	
371-3	B. We cannot support implementation of Alternatives B, C, or D, unless there are compensations for the loss of wildlife habitat and losses of wildlife resulting from wildlife/vehicle collisions.  End of comments	
	Page 2	
	(371)	

375-1

Neal Savage

February 14, 2002

Ms. Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, UT 84701 RECEIVED
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TIMBER
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Savage

Savage Industries Inc. 5250 South Commerce Drive Suite 200 Salt Lake City, Utah 84107 (801) 263-9400 (801) 261-8766 FAX

Dear Ms. Jackson:

Savage Industries would like to take this opportunity to support the Quitchupah Creek Road proposal, and specifically Alternative D – Water Hollow Road route. Our understanding is that this route provides the least amount of conflict or controversy with landowners, local Native American tribes and environmental groups.

The truck traffic would be re-directed to the Quitchupah Creek Road, which would be built and maintained through tolls assessed on the coal haulage trucks.

The Quitchupah Creek Road reduces, by approximately 50 miles roundtrip, the impact on the State Highways and particularly avoids the southern most portion of SR-10, which is in poor repair. From the Sufco Mine the gradient is generally down hill, which is a significant improvement when compared to the substantial grades encountered on the Acord Lake road and on 1-70.

The development of a shorter route between the SUFCO Mine and Highway 10 would reduce the time and fuel consumption for the hauling of coal to the Hunter Power Plant and the Savage Coal Terminal near Wellington. In addition, it considerably reduces the truck traffic on I-70 and the most southern portion of SR-10, thus reducing the potential for accidents with other motorists using the same roads as the trucks hauling coal.

The simple fact is that a shorter and improved route to SR-10 is a positive improvement for coal haulage. Coal will be hauled from the SUFCO Mine to the Hunter Power Plant and Savage Coal Terminal. The question is how to best manage the truck traffic. The new Quitchupah Road, Water Hollow Alternative D, should be constructed and the "No Action" alternative is not acceptable.

Thank you for the opportunity to comment on the Quitchupah Creek Road proposal.

Sincerely

Neal Savage

The Materials Management and Transportation Systems Company



#### Response 375-1

The proposed road in Quitchupah Creek would be a downhill run for loaded coal trucks to SR-10, no summits or steep grades. The proposed road would remove coal truck traffic from the SUFCO Mine on I-70 east to Fremont Junction and on SR-10 north to Quitchupah Creek Bridge.

## QUITCHUPAH CREEK ROAD FEIS

	REEK ROAD FEIS		Public Comments & Responses
Letter	03/19/02 TUE 11:15 FAX 801 896 9347 FISH LAKE NTL. FOREST	Ø003	
# <b>377</b>		n counties  Response 377-1 Comments noted.	

Letter #380 (also #382 through #388)

380-1



February 20, 2002

Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701

FISHLAKE NATIONAL FOREST RECEIVED FEB 2 1 2002 AO\_ ENO\_ B&F\_ PRE\_ GIG\_ PAO... HR\_ RANGE\_ IS\_ REC. 1E OMBER. PURCH. WISHD. RES. TCOM\_ HATTRP\_ OVER SENT TO\_

RE: Quitchupah Creek Road EIS

Dear Ms. Erickson:

As part of my business, I frequently travel to the SUFCO Mine. I support the construction of the Quitchupah Creek Road for the following reasons:

- 1. It will provide a shorter route from Emery County to the SUFCO Mine saving time and fuel;
- 2. Create a lower probability of accidents with passenger vehicles by reducing traffic on I-70;
- 3. Save wear and tear on existing highways;
  4. Provide alternative route from Emery County to the Salina area;
- 5. Employment opportunities at the SUFCO Mine would be more appealing to Carbon and Emery County residents.

We would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.

JOY MINING MACHINERY

John Grako Sales Manager Western Region

JOY MINING MACHINERY, 1275 Ridge Road Wellington, Utah (435) 637-6161

Response 380-1 Comments noted.

## Letter #381-388 FISHLAKE HATKONAL FEB 2 2 200 \_\_\_\_ AO\_\_\_\_ ENO.... 118\_\_\_ **DBT** DBT America P.O. Box 1016 1814 North 1500 West Price, Utah Telephone (435)-637-3930 Telefax (435)-637-9754 February 15, 2002 Mary C. Erickson Forest Supervisor USDA Forest Service 115 East 900 North Richfield, UT 84701 Dear Ms. Erickson: As part of my business, I frequently travel to the SUFCO mine. I support the construction of the Quitchupah Creek Road for the following reasons: Response 381-1 1. It will provide a shorter route from Emery and Carbon county to the SUFCO Comments noted. 381-1 mine thus saving time and fuel. 2. Create a lower probability of accidents with passenger vehicles by reducing traffic on I-70. 3. The shorter route save wear and tear on existing highways. This letter also signed by: Vickie Shreve, Dan Taping, Sean E. Anderson, Provides alternative route from Emery County to the Salina area. Mike Dammian, Paul Chacar, Dustin Anderson, and one illegible signature. We would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D. Title: Se. Securce Engineer DBT AMERICA INC.

03/19/02 TUE 11:16 FAX 801 896 9347 \_ \_ \_ FISH LAKE NTL. FOREST Ø 007 Letter #396 Canyon Fuel Company, LLC FISHENKE NATIONAL POREST SUFCO Mine RECEIVED 397 South 800 West Solina, Utah 84654 (435) 283-4880 Fax: (435) 286-4499 FER 28 2002 , FIER Ms. Mary C. Erickson TOP Forest Supervisor COTTO USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701 RE: Quitchupah Creek Road Draft Environmental Impact Statement Response 396-1 A fenced cattle trail would be constructed along 1.5 miles of the western end of the proposed road where topography limits free movement of Dear Ms. Erickson: Canyon Fuel Company, LLC (CFC) and the Sufco Mine appreciate this opportunity to livestock. East of that, the cattle would trail outside the fenced road comment on the Quitchupah Creek Road Draft Environmental Impact Statement (DEIS). This DEIS represents the culmination of several years of cooperative effort by the corridor. Fishlake National Forest (Forest), Bureau of Land Management (BLM), Sevier and Emery Counties, the local landowners, and Sufco to improve the local economies and safety of the regional public roads. We appreciate the effort that all interested parties have made in finding a workable solution to building this road. CFC and Sufco would like to express their support for the Alternative "D" public road right-of-way, referred to as the Water Hollow Road Alignment in the DEIS. This alternative would bypass the historical and prehistoric cultural resource sites and the wetlands associated with Quitchupah Creek. While the costs of construction would be greater, this route mitigates the impact to critical wildlife habitat, concerns of the private landowners and Native American tribes. The Alternative "D" route meets the needs of the mine as a second access for transporting coal while accommodating emergency services. Because of its location away from Quitchupah Creek, any potential stream degradation from road construction and use would be reduced when compared to Alternative B and C. The historic use of the Quitchupah Canyon for driving cattle between winter and summer ranges should be protected. Road designs could include allowances for the 396-1 driving of cattle adjacent to the road through the narrow sections of the Quitchupah Canyon. The mine is more than willing to work with the cattlemen on the scheduling of coal shipments to allow for the safe passage of livestock through these areas, but road design and construction could allow for cattle movement without impact from coal transportation. Sufco believes that an equitable solution can be found for this problem with minimal additional effort during the design and construction phase of this project.

QUITCHE	ATT CREEK ROAD TEIS		Tubile Comments & Responses
Letter	03/19/02 TUE 11:17 FAX 801 896 9347 FISH LAKE NTL. FOREST	Ø008	1
#396	The property of the property of the DEIS		
	Again, CFC and Sufco appreciate the Forest's and BLM's efforts in preparing the DEIS. We are looking forward to the completion of the final EIS, the construction of the Water Hollow Alternative "D" Road, and preserving the long-term benefits from the Sufco Mine to the residents of both Sevier and Emery Counties.		
	Hollow Alternative "D" Road, and preserving the long-term benefits from the Suico Militer to the residents of both Sevier and Emery Counties.		
	Sincerely, CANYON FUEL COMPANY, LLC SUFCO Mine		
	SUFCO MINIO		
	Kenneth E. May		
	Mine Manager		
	KEM:kb		
	·		
	(396)		



Utah Archaeological Research Institute 791 Nancy Way

Marty C. Erickson Forest Supervisor Fishlake National Forest 115 E. 900 North Richfield, Utah 84701 North Salt Lake-Utah 84054 FISH AVE NATIONAL PORTS (\$01) 936-4630 RECEIVED FEB 2 7 2002 END BAF PIRE PAO\_ HR RANGE 13\_ REC TIMBER PURCH WISHD RES\_ ENTRO TCOM\_

We would like to comment on the Draft Environmental Impact Statement (DEIS) issued jointly by the BLM and Forest Service concerning the SUFCO coal hauf road through Quitchupah Creek and Convulsion Canyon.

We have concerns that the degree to which the archaeological sites in the canyon will be adversely impacted by the proposed project have neither been adequately stated nor discussed in the DEIS. The uniqueness and value of these archaeological sites to provide scientific information has not been adequately described.

At the junction of Quitchupah Canyon with the North Fork, there are about 10 panels of rock art (pictographs and petroglyphs) with another 4 or 5 panels in the vicinity. Some of these will be destroyed by construction of the proposed road if either alternative B or C is selected.

The largest numbers of images in this area are the uncommon Barrier Canyon Style and Glen Canyon Style 5. Glen Canyon Style 5 is the oldest style of rock art yet identified in Utah. It dates from the Archaic Period, which began about 7,000 years go and lasted up to about 2,000 years ago. The Barrier Canyon style may also have begun in this period, but it lasted much longer. There are also Fremont and Ute images in the panels. The Barrier Canyon Style and Glen Canyon Style 5 images in the panels are important because of their extreme age. They also are excellent examples of their style types, and embody distinctive characteristics that are rare in their styles.

The Glen Canyon Style 5 images in this location are one of the most northwestern sites of this style, and are important because of this fact. (The highest concentration of these images is in southeastern Utah and northeastern Arizona.) These, and all other images in this location, are important because of their potential to provide information concerning the movement over time and through space of the people in the prehistoric cultures who created them. These images have the potential to answer the questions of why these people were at this extreme northern location in their range and when the cultures were present in the canyon.

Additionally, there are images at this location that appear to be combinations of Barrier Canyon Style and Fremont Style. These are of critical importance to understanding the relationships between the prehistoric rock art styles and the interactions of various cultures. Furthermore,



#### Response 398-1

The FEIS text in Section 3.12 regarding the cultural resources within the project area has been revised to better describe the uniqueness and significance of the sites. The proposed road through Quitchupah Creek canyon has been rerouted in the area of the rock art sites in order to avoid possible impacts from road construction activities.

#### **OUITCHUPAH CREEK ROAD FEIS**

## Letter #398

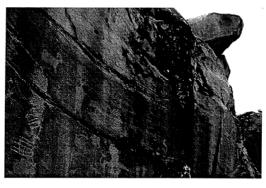
398-2

since these combinations exist, the panels have the potential to provide information on determining when the relationships took place and how they changed over time. The potential for obtaining this important information in the Quitchupah Creek and Convulsion Canyon area is unique to these sites. This significance needs to be discussed in the EIS.

These panels are unique. In our experience, we have found no other rock art panels that are exactly like these anywhere in Utah. This fact needs to be discussed in the EIS. (As evidence from which to draw this conclusion, please see the attached map of rock art sites located by the Utah Archaeological Research Institute over the past 30 years.)

No one knows what these images mean, or why they were placed at this location. Research is currently being conducted at these locations to determine answers to these, and other questions. Since the meaning, function and purpose of these images has not yet been discovered, no adverse impacts to these figures are acceptable, or important and significant information may be lost. This should be also stated in the EIS.

Furthermore, preliminary research at these panels has shown that the images have the potential to provide important information about the archaeoastronomical beliefs and practices of these ancient people. On the north facing side of the large rock at the junction of Quitchupah Canyon and North Fork, there is a unique panel of spectacular petroglyphs. It is unusual for panels to be placed on north facing rock surfaces. This placement suggests that the panel may have unusual properties. Overhanging this panel is a pointed rock that casts a sundial-like shadow across the panel as the sun moves across the sky. See photographs below. There is a possibility that this shadow may align with features of the panel at various times of the year and act as a calendar.



Photograph showing shadow casting rock above panel.

If the road is built past this feature, there is a very real possibility that the vibrations from construction and/or operation of the heavy coal trucks will move this rock and destroy any

Comments of the Utah Archaeological Research Institute concerning Quitchupah DEIS, Page 2

#### Response 398-2

The FEIS contains a more detailed description of the rock art in Quitchupah Creek canyon. The presence of several rock art styles indicates that the area was utilized for thousands of years. The styles exhibited and the groups affiliated illustrate a common attraction and uniqueness to the area. The impact analysis has been revised to reflect the unique nature of these sites.

#### Response 398-3

Vibrations due to construction activities, blasting, and coal truck traffic would not adversely affect the cultural resource sites, specifically the rock art sites. The proposed road corridor down Quitchupah Creek canyon was rerouted to the south side of the creek in order to avoid the rock art and other cultural resources in that area. Rock art and structural cultural resources are the site types potentially most susceptible to impacts from minimal movement/damage to structural failure and loss of the resource. As presented in the BLM Handbook H-3150, illustration 10, the BLM has determined that peak velocities at the base of standing cultural structures and rock art should not exceed 0.75 inches per second. The BLM's distance of set-back, for example, is 205 feet for a 10 lb charge buried 10 feet. The set-back for a 10 lb charge at the surface increases to 1,013 feet. There are no proposed blasting areas within 1,200 feet of the rock art complex. BLM guidelines for blasting set-backs would be utilized.

Normal environmental conditions to which these resources are subjected on a daily basis and which cause similar effects include wind, temperature changes, humidity changes, and vibrations from aircraft and vehicles. Failures of prehistoric structures and rock art occur as natural events, a function of ever-present forces of erosion and decay. Precipitation combined with freeze-thaw cycles and other natural processes can impact the stability of these sites.

potential for determining the astronomical functioning of the site. Even the slightest movement may be detrimental. Thus, important information may be lost. The potential for loss of this important information needs to be discussed in the EIS.





Photographs showing the movement of the shadow across the panel.

Photographs taken in June 1981.

Research conducted by Jesse Warner (Utah Rock Art Volume VIII, Section 4, "Solar Observations at Quitchupah, Utah 1988-1989") also indicates that other panels in the area, including one that may be destroyed if the road is built, also have archaeoastronomical significance.

Comments of the Utah Archaeological Research Institute concerning Quitchupah DEIS, Page 3

#### Response 398-4

Although archaeoastronomical significance of the rock art in the Quitchupah Creek area has been examined (Warner, 1989), this area of study is inconclusive and therefore not included in the analysis. These sites are unique and eligible for the National Register of Historic Places.

The proposed alignment for Alternative B, Quitchupah Creek Road, and Alternative C, Alternate Junction, has been shifted south from the alignment in the DEIS (which was about 60 feet from the panels). This new alignment would place the proposed road about 300 feet away and across the creek from the panels. The new alignment would also avoid impacting some other known cultural sites located within the previous alignment. No additional eligible sites are within this modified route.

The existing road currently routed between the creek and the panels would not be used for access. This would tend to limit access for casual visitors.

This modification to Alternatives B&C will lessen the potential for impacts of a busy public road next to the rock art site.

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cont.

Because the prehistoric images along Quitchupah Creek are both unique and have the potential to provide significant and important information about the prehistory of the area and about archaeoastronomy, they are eligible for inclusion in the National Register of Historic Places. This should be discussed in the EIS.

Because of the information presented here, the significance of secondary impacts to the archaeological sites and panels of rock art and resulting loss of important information, should be discussed further and evaluated in the EIS.

Furthermore, impacts from road construction, diesel fuel exhaust and coal dust need to be discussed and determined. The impacts of these substances may make future dating of the rock art impossible. This needs to be stated in the EIS.

In conclusion, we know that these images are unique. This cannot be stressed enough. No other rock art panels exactly like these exist anywhere else in Utah and anywhere else in the entire world. At no other locations were the combinations of cultures, time periods and meanings of rock art present that would lead to the creation of these rock art panels. The potential for discovering significant and important information about the prehistory of the area, and about the prehistory of the western United States, from these images is unquestionable. These facts must be clearly stated in the EIS.

Primary impacts as discussed in Alternative B and C indicate that damage, even destruction of some of these significant rock art panels, will occur. The only acceptable alternative, given the above information, is action A - no action.

Sincerely,

Steven J. Manning

Director and Principal Investigator

#### Response 398-5

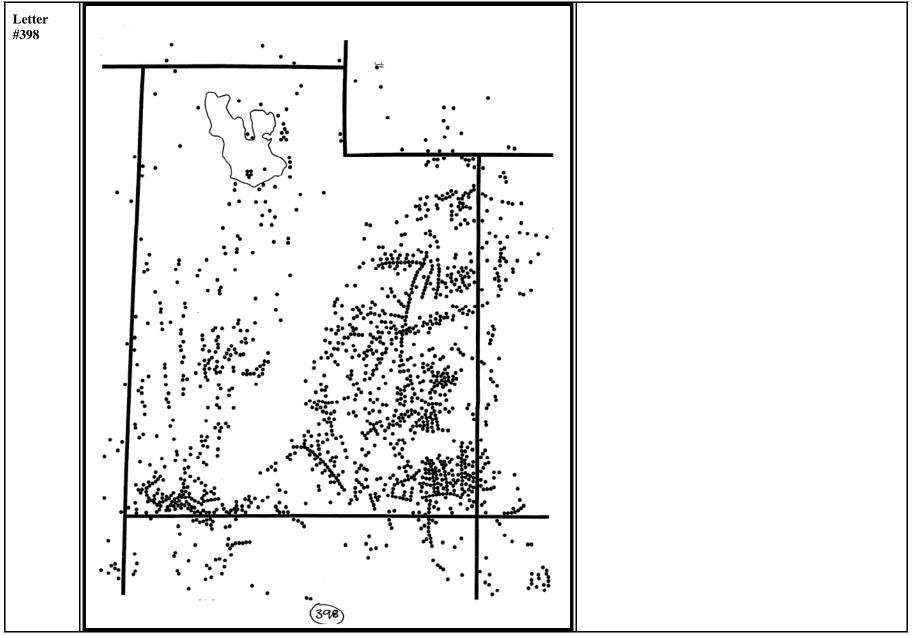
The FEIS text in Section 3.12 regarding possible impacts, including indirect impacts, to cultural resource sites has been revised. Direct impacts, depending on the alternative chosen, could include site destruction, loss of integrity, and increased erosion. Indirect impacts include possible vandalism from increased accessibility and use of the area for recreation.

Vibrations during construction and produced by coal transport trucks could cause impacts to the rock art sites. Dust from road construction would be suppressed through use of water or an approved dust suppressant. There is no conclusive evidence that emissions would impact the rock art.

Quantifying air pollution damage is difficult. The damage function is the quantitative relationship relating the influence of a pollutant, such as diesel emissions, on a receptor-like stone. The mathematical form of the damage function depends on whether the ambient air concentration or deposition rate is the measure of pollution and also on the measure of damage, such as surface loss or chemical denudation (Livingston 2002). Air pollution standards are created for human health protection utilizing ambient air quality standards. A measure of deposition rate would be more appropriate in determining the affects on rock art.

Motor vehicles generate three major pollutants: hydrocarbons, nitrogen oxides, and carbon monoxide. Nitrogen oxides are produced from buring fuels, including gasoline and coal. Ground-level ozone is a product of reactions between chemicals that are produced by burning coal, gasoline, other fuels, and chemicals. Vehicles and industries are the major sources of ground-level ozone. Particulate Matter is any type of solid in the air in the form of smoke, dust, and vapors, which can remain suspended for extended periods. Particulates are produced by many sources, including burning of diesel fuels by trucks, fossil fuels, road construction, and industrial processes such as mining. Volatile Organic Compounds (VOCs) are organic chemicals, many of which are hazardous air pollutants. Vehicle emissions are an important source of VOCs. As stated above, these are human health standards which do not apply readily to the damage function. Therefore stating that these emissions/pollutants are within or out of acceptable range does not imply the same in regards to affects to rock art in the area. Sufficient data to analyze pollutant damage to the rock art does not exist and therefore does not appear in the analysis.

Comments of the Utah Archaeological Research Institute concerning Quitchupah DEIS, Page 4



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February 11, 2002

Linda L. Jackson Public Affairs Officer Fishlake National Forest Kay Erickson Realty Specialist

115 East 900 North Richfield, UT 84701 Bureau of Land Management Richfield Field Office 150 East 900 North

Richfield, UT 84701

Re: Draft Environmental Impact Statement - Quitchupah Creek Road

Dear Ms. Jackson and Mr. Erickson,

As Castle Valley has previously stated, it strongly opposes Alternatives B and C of the Draft Environmental Impact Statement ("DEIS").

Nevertheless, after a thorough review, in depth discussions with many of the parties and others submitting comments on the proposal, and serious, thoughtful consideration of the social, cultural, environmental, and economic needs of the region, Castle Valley is prepared to support the Alternative D, the Water Hollow Route, as identified in the DEIS. Castle Valley believes that this Alternative best protects the irreplaceable cultural, environmental, aesthetic, and social values of Quitchupah Canyon, while adequately providing for the economic requirements underlying the proposal for the construction of the road.

#### Castle Valley's Interests:

Castle Valley owns approximately 16,000 acres of land in Emery County, plus approximately 2,000 acres in Sevier County. In addition, it leases several thousand fee acres in Emery County, and has grazing permits on several thousand additional acres of State, Forest Service, and BLM land in Emery, Sevier, and Wayne Counties. It runs almost 2,000 cows, 200 bulls, and over 100 horses on its lands. It is also actively involved in developing its lands for other outdoor activities such as bird and big game hunting, as well as providing the public with general out-door experience opportunities under the guidance of trained outdoorsmen, which Castle Valley believes will bring additional employment, recognition, and economic activity to the area, which is not dependent on the minerals extraction industry.

While most of Castle Valley's land is located within the Emery/Moore area, it has significant land holdings in the immediate vicinity of Quitchupah Canyon and is the principal



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user of the water in the Quitchupah Creek. Its fee land holdings include two plots of land directly in Ouitchupah Canyon, which will be directly and negatively impacted by the Alternatives B and C rights-of-way. One of these plots is a choice piece of tillable acreage currently used for raising alfalfa and other cattle feed in the summer and winter pasture in the winter. This acreage also provides valuable winter range for the wild ungulate population of the area, and supports prey species for the Raptores and small predator species the live in or migrate into and out of the Canyon. These values, as well as the cultural and aesthetic treasures of the Canyon, figure largely in Castle Valley's attraction to Quitchupah Canyon and its planned development of light-impact outdoor activities development. These values will be largely destroyed by any development of the proposed road along the Alternative B or C routes.

In addition to its land holdings and water interests in and around the Quitchupah Canyon, Castle Valley uses the Canyon for access to and from its summer range for a portion of its cattle. Losing the use of the Canyon for its spring and fall cattle drives would add significant cost to the already cost-strapped cattle business of Castle Valley and the other local cattlemen. As noted in the DEIS, construction of the road under Alternatives B or C would render most of the Canyon livestock trail unusable, and the road would pose a substantial hazard for livestock in the

Thus, Castle Valley's interests in the outcome of this proposal are both direct and substantial.

#### Values to Be Protected:

Quitchupah Canyon is a unique segment of the heritage of Utah. Castle Valley has expended considerable effort to properly identify and evaluate this heritage. Based on the information produced through its contacts, Castle Valley submits that the Canyon should receive active protection from all levels of government to preserve its many singular values, among which are the following:

#### Cultural:

It seems to Castle Valley that the DEIS is almost sterile and devoid of real analysis in its discussion of the cultural values of the Canyon. Castle Valley's efforts to understand the cultural heritage of the Canyon indicate that the Quitchupah Canyon has played a significant part in the lives of the Native Americans of the region for several thousand years, and may be one of the few locations in Utah, if not the lone location, where representative examples of the art of all of Utah's principal prehistoric cultures are present. Castle Valley has been advised that Native American rock art dating back almost 5,000 years is not only present in the Canyon, but that it is present in an uniquely confined area.

It is feared that some of this unique heritage may have already been covered or otherwise disturbed by the limited road building and maintenance conducted in the Canyon in the past.



#### Response 400-1

A cattle trail would be constructed along 1.5 miles of the western portion of the proposed road where topography limits free movement of the livestock. East of that, the cattle would trail outside the fenced road corridor. Livestock trailing through the Quitchupah Creek area would continue. See Section 3.8 for additional information.

# Response 400-2

The FEIS contains revised sections for cultural resources and Native American Concerns (Sections 3.12 and 3.13). Should Alternative B or C be selected then mitigation would be developed and approved by the appropriate agencies for impacted cultural resource sites, including potential indirect impacts to the rock art sites. The tribes, as consulting parties, would be involved in resolving and approving mitigation measures.

An ethnographic study (Stoffle et al. 2004) of the Quitchupah Creek area was conducted with the Paiute Tribe. This is summarized in Section 3.13.

400-2 cont.

400-3

Castle Valley has been advised, however, that the portions covered or disturbed by this past human activity may be recoverable.

Not only is there unique rock art value to the Canyon, which Alternatives B and C would at best threaten, and at worst destroy, a number of other cultural and archeologic sites, both prehistoric and historic, have been identified. The DEIS itself notes that there is no way to avoid negative impacts to rock art and other cultural sites if Alternatives B or C are selected. Its conclusion that "[t]he sacredness of the canyon...would be irretrievably violated by the construction and operation of a public haul road[, and e]ligible prehistoric sites not excavated for salvage would be unmitigated residual impacts due to the road construction[,]" cannot be emphasized strongly enough. In fact, Castle Valley believes that instead of attempting to determine whether these resources should be permitted to be negatively impacted or destroyed, the BLM and Forest Service should be evaluating the method and timing of preserving these unique resources for future generations.

Taking the long-term view, Castle Valley believes that over time these cultural treasures represent a valuable resource which can form the basis for regional economic growth. Without protection these assets will be lost to future generations and will never reach their full cultural and economic potential.

Castle Valley submits that Alternatives B and C should be rejected solely because of their destructive potential to valuable cultural resources.

Nevertheless, while rejecting Alternatives B and C because of the extremely negative impact on the cultural resources of the Canyon, Castle Valley recognizes that economic development should not be sacrificed if a reasonable alternative is available. Therefore, on balance Castle Valley supports the construction of the haul road under the Alternative D proposal, because of Alternative D's avoidance of the cultural resources of Quitchupah Canyon.

#### Environmental:

The Quitchupah Canyon is a steep, narrow, canyon with a small stream running in its bottom. Although the stream is generally small, in times of peak runoff in the spring or following thunderstorm events, the stream can become quite violent and erosive. This, coupled with the fact that the soils in the Canyon are easily eroded, means that the route to be followed by Alternatives B and C is extremely unstable. The instability of the route, along with the gated nature of the road over the private lands in the canyon, is a major reason that the Quitchupah Canyon road is little traveled. In addition to the other impacts from heavy traffic in the Canyon, it is to be expected that the vibrations and emissions from the blasting and construction work, followed by those from the heavy trucks moving regularly up and down the road, will inevitably, unnecessarily, and irretrievably damage such cultural resources as are left otherwise undestroyed in the Canyon.

3



# Response 400-3

We agree that Quitchupah Creek=s flow is flashy and erosive, and that the upland watershed contains erodible soils; those characteristics were described in the Draft EIS. While there is no doubt that the existing road is unstable, the road design features, BMPs, and monitoring program for the proposed routes B and C would alleviate many of the problems of the current road. In addition, the applicant and agency-committed measures would help to compensate for any increased erosion or sedimentation from the project.

The barrier affect of the proposed road and habitat fragmentation will be detailed in the FEIS. There is critical big game winter range on Water Hollow and Saleratus Benches that would be impacted by construction of Alt. D. The mitigation would include additional seedings for big game winter range, fencing of the road, and a warning system when elk are crossing the road.

The proposed route near the rock art was shifted south and across the creek. No blasting would occur within 1200 feet of the rock art (see Response 398-3).

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The construction necessary to put a road of the size proposed for Alternatives B and C in the Canyon will cause excessive silting and erosion in the Quitchupah Creek, and cannot help but physically alter the natural creek flow and alignment. These impacts will have a seriously negative outcome on the fragile riparian ecosystems in the Canyon. Additionally, the high traffic volume, noise, and emissions will undoubtedly inhibit, if not remove, the availability of this important water source for the fauna normally utilizing the Canyon's water.

Putting a high-volume, heavy-vehicle road down through the middle of the Canyon will without doubt negatively impact the wintering grounds for the wild ungulates in the area. It will also unquestionably drive the majority of the resident and seasonal mammals, both prey and predator, as well as the birds, including raptores, from the Canyon, and cause an unnecessary risk for the domestic animals using the Canyon.

Castle Valley submits that with the possible exception of the impact on wintering elk, which impact is speculative in the DEIS, substantially all of the negative environmental impacts of Alternatives B and C can be avoided or significantly reduced by the selection of Alternative D, the Water Hollow Route. It also appears from the DEIS that the Water Hollow Route has the additional advantage of making existing oil and gas leases more readily available to exploration and development without the need for as much additional road creation. The positive result of reducing the number of additional roads and tracks in the area alone would seem to dictate the selection of Alternative D.

#### Aesthetic:

Quitchupah Canyon is an aesthetic treasure appreciated by almost everyone who has the good fortune to visit it. Part of this aesthetic value is the isolation and quiet the Canyon offers to visitors. Constructing the proposed road in the Canyon would completely destroy the Canyon's aesthetic value in a way which would be irreversible and incapable of mitigation.

#### Social:

The Emery area is in need of resource development, which will provide the potential for long-term economic growth. While the activity in the Sufco Mine can be expected to provide short-term economic benefit to the Emery area, there is no pretense that this benefit is anything other than a one- or two-generation benefit. The real potential for long-term economic growth and stability in the Emery area rests with the development of its latent tourist appeal. Nothing should be done, which has the potential for destroying this economic growth potential.

For the past several years Castle Valley has been actively working at developing a tourist business with its lands. These activities have included the restoration of the Castle Valley Ranch facilities, the preservation of old pioneer buildings located on Castle Valley lands, and the conversion of an old farm house into an appealing retreat for hunters and others seeking uplifting outdoor experiences. Castle Valley has set up a sister entity, Castle Valley Outdoors, LLC,



### Response 400-4

While there may be some temporary, localized sources of sediment during the construction of the proposed road, these would be minimized by the construction techniques and best management practices that would be implemented. An additional discussion of these has been added to the Final EIS.

Quitchupah Creek=s flow and alignment is already affected by the flashy nature of the runoff and the already high sediment loads conveyed to and through the stream system (as the commentor previously stated). The Afragile riparian ecosystem@ noted by the commentor has already been severely compromised by livestock and natural erosion/sedimentation. Both plant and animal life currently present in the stream/riparian corridor has to be adapted to high sediment loads and changing erosion/deposition of bed/bank materials. Any short term, minor sediment loads added to the stream as a result of construction would not further change this status quo. The final EIS has been revised to include a more extensive description of the BMPs associated with the proposed road design, construction, and maintenance. Further, it has been revised to include details on applicantand agency-committed measures to reduce livestock impacts on Quitchupah Creek), all of which would reduce existing sediment/salinity impacts. Lastly, the EIS has incorporated an extensive monitoring plan which would ensure that chronic sedimentation/erosion sources associated with the road project are fixed, and that water quality goals are met. All of these measures combined would minimize the potential for water quality or riparian ecosystem impacts.

Alternative D, the Water Hollow Route, would provide access into essentially roadless terrain for the exploration and development of other resources such as oil and gas.

#### Response 400-5

See Section 3.10, Visual Resources. The changes brought by the proposed road or alternatives are within the criteria for the visual class ratings used by the BLM and FS for these areas. The visual class ratings used by the agencies are for development of the area and not for preservation of aesthetic values.

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400-6 cont.

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which is actively raising upland game birds, developing bird hunting areas, hosting bird and big game hunts, and offering horse and ATV tours into the enchanting landscape of the region. Because of their isolation and location, Castle Valley's lands in the Canyon are an integral part of these development plans and activities.

Castle Valley has also been in contact with a European tour agency, which specializes in providing European and Asian customers with American West adventures. This tour agency is very interested in the uniqueness of the Quitchupah Canyon, and is presently working on the possible inclusion of Quitchupah and other Castle Valley Ranches lands in its tours.

In addition to the hunting and outdoor adventure business, it is quite clear that as the taste of international tourists is developed for the prehistoric rock art of the Native Americans, the cultural heritage and resources in Quitchupah Canyon will become a valued attraction. Castle Valley submits that for this reason alone the government's efforts should be to protect this resource from short-term development, which will lead to irretrievable damage to and loss of the resource. Alternatives B and C destroy the opportunity to build a long-term economic benefit for the impacted portion of Emery County utilizing this valuable and unique resource.

#### Project Costs:

Project costs should not be limited to those directly associated with the project, but should include the collateral costs which will be experienced by others adversely affected by the project. An example of the collateral costs is the impact on the cattlemen who utilize the Ouitchupah Canyon for trailing cattle to and from summer range on the national forest.

Just as the construction of the proposed road will lead to reductions in the transportation costs of coal from the Sufco Mine, the failure to give adequate consideration to the other users of the Canyon can have a catastrophic cost impact on the cattlemen using the Canyon. The cattle business is already marginal, and it does not take much to tip the scale from profit or break-even to destructive loss. There does not appear to be any analysis of the impact of trucking costs and livestock loss resulting from the proposal on the cattlemen who have used Quitchupah Canyon for decades. Even for the larger ranchers using the Canyon, trucking costs and livestock loss could well prove ruinous. These costs for the various alternatives should also be quantified and placed in the balance. No alternative should be permitted to go forward, which does not adequately protect the cattlemen's long-existing rights to the use of the Canyon, and which does not eliminate or substantially minimize the potentially destructive impact of trucking costs and cattle loss to the cattlemen.

Castle Valley believes that the DEIS unfairly presents the project costs in a manner which appears to give the nod to Alternatives B and C, to the disadvantage of Alternative D. Although Castle Valley has made no attempt, and in fact does not have the resources readily available, to quantify the magnitude of the costs not reflected in the costs presented for Alternatives B and C, Castle Valley believes that all costs associated with those Alternatives should be fairly presented



# Response 400-6

See Response #400-5 and Section 3.15, Socioeconomics. The economy of Emery County is based on mining, power plants, and agriculture. Emery County wages and household income are above state averages.

## Response 400-7

About 1.5 miles of livestock trail would be constructed. There would not be costs to the cattleman. All costs for livestock facilities associated with the proposed road would be paid for by the SUFCO mine.

See Section 3.8. Livestock would be fenced out of the road corridor. Any losses of cattle due to vehicle collision would be compensated for under the State's open range law.

Costs related to the different alternatives are analyzed in Section 3.15 Socioeconomics.

QUITCHUI	AR CREEK ROAD FEIS	Fuolic Comments & Responses
Letter #400		
400-7 cont. 400-8	in order to avoid skewing the presentation in favor of Alternatives B and C, even though some of those costs may be ultimately pushed off onto other entities, such as Sevier County and UDOT.  In the early days of the floating of this proposal there were some very large numbers given for the changes that would be required in the vicinity of the junction of Alternative B with Highway 10. These numbers resulted from the changes necessary to the Quitchupah Creek bridge, and the construction of start-up and slow-down lanes leading from and to the junction. Castle Valley is not convinced that the true costs of Alternative B have been fairly presented.  Additionally, it does not appear to Castle Valley that the safety issues regarding the junction of Alternative B with Highway 10 have been considered at all.	Response 400-8 See Table 2.7-1 and Section 3.15 in the FEIS for revised cost figures.
400-9	RECOMMENDATION:  Castle Valley's efforts to fully understand the needs for the project and to balance those needs with the legitimate concerns of others to be impacted by it have lead Castle Valley and its owners to the conclusion that the best alternative is that represented by Alternative D. Therefore, Castle Valley and its owners are prepared to support the selection and construction of the road on the route proposed for Alternative D.  Castle Valley is pleased and heartened by the recognition of the interests of the cattlemen by Canyon Fuel Company and the Sufco Mine, and their willingness to take the necessary steps to mitigate the negative impact on the cattlemen resulting from the proposed road. Castle Valley supports Sufco's suggestion that an equitable solution can be found for the problem, and is willing to work with Sufco and the other cattlemen during the design and construction phases of the project to assure the safe and economic use of the lands for the movement and maintenance of livestock by the involved cattlemen over the life of the road.  Castle Valley appreciates the opportunity to comment on this project, and urges the Decision Maker(s) to adopt Alternative D, incorporating provisions for the cattlemen's protection.  Respectfully submitted  Admit Alternative D, incorporating provisions for the cattlemen's protection.	Response 400-9 Comment noted, see Response 400-1.
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QUITCIIUIA	AT CREEK KOAD I EIS	T uone Comments & Response
Letter #402	### Sets South State, Sandy, Utah 84070-3205 - Fax: (801) 233-3030  **Administration (801) 233-3008  **Accounting (801) 233-3008  **Public Policy (801) 233-3004  **Farm Salety (801) 233-3004  **Water Quality (801) 233-3004  **RECEIVED  **MAR - 4 2002  **RANGER MISTRICT  **RECREATION RANGER MISTRICT  **RECREATION RANGER MISTRICT  **RECREATION RANGER MISTRICT  **PUBLISHED SAMENT RECREATION RECREATION RECREATION RANGER MISTRICT  **PUBLISHED SAMENT RECREATION	Response 402-1 A livestock trail would be constructed along 1.5 miles of the west end of the proposed road where topography restricts free trailing movement. East of that, livestock would trail outside of the fenced road corridor. A good
402-2	some operators but certainly not for all and the federal government shouldn't force operators to truck their livestok. Also if you talk to any producer they will tell you there are injuries and stress to livestock associated with trucking as well as the additional costs. The Forest Service has the responsibility to require the Quitchupah Road remain a livestock driveway like it has been for many years.  Another concern we see is the proposed road eliminating acres that provide forage to livestock. BLM has done some reseeding of lands that the proposed road would go through or near to during construction, thus taking forage from livestock. This loss along with others, such as disrupted water improvements, must be mitigated.  We understand that there has been some discussion regarding fencing the proposed road and keeping the livestock on one side of the fence and off of the road. If this is a reasonable alternative, then the cost of this fence must also be mitigated.	that, livestock would trail outside of the fenced road corridor. A good portion of the existing road could be utilized under Alternative D.  Response 402-2 The loss of forage in the allotments on Water Hollow Bench would be five AUMs most in the G.L. Olson Allotment. Mitigation in this allotment includes a water system for better distribution of cattle which means better use of forage in seedings now far removed from water. See Section 3.8.  The cost of constructing livestock fence would be covered by the proponent and ultimately the toll user of the road.
	402	

QUITCHUPAH CREEK ROAD FEIS Public Comments & Responses 3 Letter #402 Livestock production is a basic industry in Emery and Sevier Counties just as is coal production. Both are needed and provide economic activity for the state and local communities. For those persons who are involved in either of these two industries, one is no more important than the other. If the proposed road is approved it should only be on the condition that the livestock operators can continue to trail their livestock and the impacts to their operations, due to the proposed road, are mitigated. The Farm Bureau feels very strongly about these livestock driveways. There were problems when 1-70 was built through Clear Creek Canyon where the Fremont Indian State Park is now located. It has taken years to correct the failure to provide an alternate livestock driveway through this area. We would hope this kind of problem can be avoided. Thank you for the opportunity to provide input. Sincerely, Southern Regional Manager Utah Farm Bureau Federation



RICHFIELD RANGER DISTRIC RANGER

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TIMBER

WILDLIFE.

February 1, 2002

Mary Erickson Fishlake National Forest 115 East 900 North Richfield, UT 84701

Dear Mary,

The UEC appreciates the opportunity to comment on the DEIS Quitchupah Creek Road proposal. This is a proposal for a coal haul road that would benefit the SUFCO mine. As part of our comments on the DEIS, the UEC incorporates by reference its previous comments dated January 28, 1999 and August 10, 1999. The UEC also incorporates by reference the comments submitted by the USFWS, the EPA, the SHPO, and the UDWR for the DEIS. We have contacted these agencies and requested copies of their comments. The UEC shares many of the same concerns stated by these agencies. The UEC also incorporates by reference the comments of Ms. Carolee Hammel and Mr. Thomas Bunn.

#### Purpose and Need

The primary purpose of the road is to provide an additional coal-hauling route for the SUFCO Mine. According to the DEIS, the use of the road by the SUFCO mine for coal hauling would reduce hauling times and increase revenues for the coal mine. The DEIS states that the secondary purpose of the road is to provide an alternate access to the mine for safe conduct of traffic and rescue units in the event of a mine emergency. It is apparent that the mine company, BLM and Forest Service have only considered the proposed project as a means to make the mine more competitive. Why haven't other viable methods been considered to make the mine more competitive?

It is not a public purpose to make SUFCO more profitable which is the primary reason for this project. Regarding the safety issue, it is UEC's understanding that the SUFCO mine is rated one of the safest mining operations in the world. The DEIS failed to cite even one serious incident during the 60+- year lifespan of the mine that would require the need for this additional access road. The secondary purpose carries little weight as the mine has been running for years with no incidents and apparently content with current access.

It is difficult to imagine a more ridiculous project than the Quitchupah Creek road project. Apparently, the only entities that want it are the SUFCO mine and Sevier County. In an unlikely alliance, the majority of state and federal agency comments, Native American tribes, ranchers, private landowners, and many in the environmental community all believe this is a terrible project that will only benefit the SUFCO mine, and which will not be in the long-term best interest of the public.

> 1817 South Main Street #10 • Salt Lake City, UT 84115 (801) 466-4055 • Fax (801) 466-4057



# Response 403-1

The Purpose and Need has been updated. The road will contribute to the competitive productivity of the SUFCO Mine, as a source of economic stability for Sevier County, a potential source of additional income for Emery County, and a source of high quality coal for power plants (See Section 1.1). In addition, the project supports the National Energy Policy Act which promotes such improvements in the productive and efficient use of energy. Safety is a secondary benefit.

	III CREEK ROAD FEIS	T uotic Comments & Respons
Letter #403	05/30/02 THU 16:18 FAX 801 696 9347 FISH LARE NIL. FUKESI	ള്ള ഗാ
# <b>403</b> 403-2 403-3a	Permits Required  The UEC believes the Forest Service has put the cart before the horse or is demonstrating biased decision-making in putting out a DEIS in which permits have not been secured for the project. Namely, if this project is to proceed, a section 7 consultation with the USFWS will be required, as well as a 404 Permit from the Army Corps of Engineers, which are not guaranteed. In addition, the ROW of landowners has not been secured and to the best of our knowledge, they remain firmly opposed to this project. Without these permits the project can't proceed, and if the coal mine and agencies pursue it, it will likely end up in litigation. The most cost effective method would be to abandon this project in its entirety.  Economics  The DEIS notes that the road is not necessary to increase coal production; this increase will take place regardless of the presence of a road as the contracts are already in place. Consequently, employment and payroll at the SUFCO mine would not change as a direct result of any of the alternatives. Regardless of the alternative selected (including No. Action), it is expected that SUFCO employment would increase from the current level of 276 to approximately 310 over the next several years. This also means that proposed economic benefits to the local counties will not occur as the mine does not intend to raise payroll or share the additional profits created by a shorter haul route with employees of the mine or the local counties.  Under Alternative B on page xiv of the DEIS, the statement is made, "Economic benefits would accrue to the SUFCO mine from the cost savings and to the economy of Sevier County due to the increased profitability of the mine". This is a broad statement that is not substantiated in the DEIS and is negated by the language in the DEIS on pages 3-123 and 3-124 of the DEIS confirm that the mine intends to absorb the profits, and that all contracts are already in place for future production. It is more likely that the beneficiaries of the money saved from shor	Response 403-2  The Section 7 Consultation has concluded. The USFWS concurred with the determination of the BA (Appendix G). The Sevier County Special Servic District will apply for any 404 permits when the final selection of route an design is completed and the road design can be submitted to the COE. The federal agencies will not issue a right-of-way until all the right-of-ways for state and private lands are secured. Alternative C route has been modified so that it no longer requires a right-of-way through one landowner property.  Response 403-3a  The SUFCO Mine was Utah's largest coal producer in 2004. SUFCO and dependant trucking companies provided 20 percent of the non-fart employment and 28 percent of the personal income in Sevier County in 2002. The mine is an important component of local economies. The presence and stability of the SUFCO Mine, and the families that support in guarantee a continued demand in both Sevier and Emery counties for band loans, mortgages, utilities, and other goods and services. This adds to the economic stability of both counties.  Profitability of the SUFCO Mine over time ensures that funds are available for further exploration, and maintains the SUFCO Mine's level of production and competitive edge in the marketplace. The added profits, due to reduced transport costs, substantially lower risk of failure for the SUFCO Mine and provide a buffer to economic consequences for Sevier County and to a lesser extent Emery County. See Section 3.15 Socioeconomics.
403b	trucks on steep grades and the relationship to fuel usage. The fuel savings of over 1 million gallons appears to be substantially inflated. The analysis needs to include fuel consumption based on flat terrain versus steep grades for each section of road.  Furthermore, it is our understanding that the mining company now prefers Alt. D (due to heavy opposition of Alt. B & C), which is the most expensive alternative to implement. The road alone would cost \$13.5 million and an additional \$600,000 would be needed for the passing lane to SR 10. The DEIS has not demonstrated that the benefits outweigh the costs. It would take SUFCO between 10 and 12 years to simply break even. These types of issues must be included in the Economics analysis.  1 Quitchupah Creek DEIS Page 3-123. 2 Ibid., Page 3-124.	Response 403b The socioeconomic section, Section 3.15, has been modified.

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403-4	Public Involvement Process  The DEIS addresses public involvement: "Public involvement is an important part of the environmental analysis process. The public involvement plan describes the methods and techniques used to involve the public in the environmental analysis. It allows the public to participate actively in the NEPA process and to communicate their concerns regarding the Proposed Actions."  Castle Valley Ranches, Carolee Hammel, and Thomas C. Bunn are landowners in Quitchupah Canyon; none were involved in the NEPA process. These landowners do not appear on the mailing list for the Quitchupah Creek DEIS. This exclusion demonstrates a failure to involve the public (and directly impacted landowners) in the proposed action. There is no excuse for this curious exclusion as these persons are listed in the DEIS as landowners (page 2-5, 2-7, 2-15). What other landowners or interested members of the public have been left out of the public process regarding Quitchupah Creek? Public involvement in the evaluation of scope and impact is an inseparable part of the NEPA process. For the Quitchupah Creek Road Proposal, this process is incomplete and has been compromised.	Response 403-4 See Section 1.6, Issues, and Chapter 4.0, Consultation and Coordination. Public involvement began during the EA process and has continued through the EIS with scoping meetings, agency field visits, public notices, and tours. The DEIS was published with an extended comment period. The FEIS/ROD will also have a comment period.  Carolee Hammel and Thomas C. Bunn were mailed a DEIS late in the comment period to correct an oversight. Castle Valley Ranches received a DEIS through John F. Bates, their representative.	
	Furthermore, several federal agencies required to comment on this project were not sent all of the relevant documents for this project, specifically those reports developed by JBR consultants. The public scoping process for this project is one of the more egregious the UEC has ever witnessed.  Alternatives  The DEIS demonstrates a strong bias and predetermined decision to not consider the possibility of	Response 403-5	
403-5	No Action. All statements concerning the No Action alternative on pages 2-3 and 2-4 are in favor of the SUFCO mine and fail to objectively consider the benefit of no road in the canyon. The No Action alternative does not evaluate the benefits of an undisturbed environment, cultural sites, and habitat for wildlife.  Alternative D is not developed at all. It appears the Forest Service and BLM placed more development on Alternative B and failed to substantively analyze Alternative D, which now appears to be favored by SUFCO. If this project is to proceed, the FEIS needs to fully analyze Alternative D, although the UEC recommends dropping it as a viable alternative. In addition, there was absolutely no analysis of the proposed ATV route that would run parallel to the road in Alternative B.  Alternative C is in Travel Area C in the Forest Plan, which are lands closed year-round to all motorized vehicle travel. The DEIS further states that road expansion to accommodate mining activity is allowed. If this alternative is pursued the FEIS must document how Alt. C conforms to the Forest Plan. Is the exception specifically geared to a major road construction such as the one proposed?	Refer to Chapter 2 for explanation of impacts due to Alternative A including the statements that the existing environment in Quitchupah Creek would not be affected. Alternative D is analyzed in all the impact analysis for each resource in the Chapter 3 of the FEIS. There is no proposed ATV travel route for any of the alternatives or as mitigation. Alternative C does not traverse any Travel Plan C area closed to motorized use as these are restricted to Old Woman Plateau RNA and the trail up Water Hollow, see Section 1.3. The impacts of blasting are discussed in Section 3.5 Wildlife Resources. In regard to blasting, see also Response 398-3.	
	None of the alternatives analyze the direct or indirect impacts of blasting on any resources. This must be completed for all alternatives in the FEIS.  3 Quitchupah Creek DEIS, Page 1-7.		

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403-6	Affected Environment  Old Weman Plateau  The Fishlake National Forest does not allow motorized vehicle travel in an area that coincides with the Old Woman Research Natural Area (RNA), located about ½ mile west of the Water Hollow alternare alignment. The UEC has also been told that the Water Hollow route is within about ½ mile of the Old Woman Plateau rather than ½ mile. This discrepancy needs to be remedied in the FEIS. The DEIS does not consider the negative impacts of noise and traffic on this RNA, nor does it analyze ANY indirect impacts. This area must receive evaluation for impacts due to noise and traffic, and improved access. ATV users often create illegal trails, and signage and enforcement must be part of any proposal that creates a road near this area. The Old Woman Plateau must receive further analysis in the FEIS.  Water Resoures  Quitchupah Creek flows perennially from the south end of the Wasatch Plateau. This creek receives significant amounts of flow from mine discharge into its North Fork, as well as imgation return flow near the eastern project boundary. The discharge of water from the SUFCO mine is an impact that was not assessed in the DEIS. The UEC requests that the FEIS disclose the impact so water quality from the SUFCO mine discharge point on the North Fork of Quitchupah Creek.  Quitchupah Creek is on the state 303d list at the boundary of the project area. What impact that was not assessed in the DEIS fibe 18 that the proximity of the "unstable" Quitchupah Creek Road as potential sources of sediment. It fails however, to mention subsidence and the mine water discharge as part of the contribution to the "unstable" creek.  The language in the DEIS (page 3-23) indicates that additional point sources of a listed parameter are not "typically" allowable under the UPDES program administered by the State Division of Water Quality. Is the construction of a road an "additional point sources" Is an increase in discharge from SUFCO mine as "additional point source"? The UEC is strongly opposed to		Response 403-6  The 0.25 mile is a correction that has been entered in Section 3.11, however because of the physical separation of 1600 feet at the cliffs, there would be no indirect impacts to the RNA since there is no access between Alternative D, the Water Hollow Route, and the RNA. There is no trail up Water Hollow creek for ATV access and there would be no parking for recreationists to unload and travel up the creek.  Response 403-7  Please see responses to comments 102-1 (Forest Guardians) and 397-6 (EPA). In addition, note that, where possible, refinement in the conceptual designs has been completed subsequent to the Final EIS that minimizes straightening and realignment. However, some alterations are necessary given the topographic confines. Where crossings occur, existing gradient would be maintained, or alternatively, if that is not possible, velocity controls will be implemented so that acceleration due to steepening does not occur. Further, the applicant has committed to the BMPs given in the EIS as part of design, therefore these are requirements of the project and are not voluntary by any means.
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# <b>403</b> 403-8 403-9	The DEIS fails to consider the impact of road construction on the Quitchupah Creek in its proposal to straighten six sites for 1100 feet.* The increase of gradient due to stream straightening will enhance erosion in the creek system. Straight channels will contribute to sediment delivery and additional erosion due to faster flows. Due to the 303d listing, the Utah Department of Water Quality cannot allow additional impacts (point sources) to occur on the stream. How will the proposed mitigation plan of implementing BMP's to control erosion be effective, when BMP's are strictly voluntary in Utah. What assurance does the public have that these mitigation measures will work, and is the funding for implementing them assured? Please include this information in the FEIS. The UEC requests that details of BMP's? in the proposed road design be included in the final EIS.  Soil Resources  Alternative B and D both propose to cross soils that are rated for moderate to severe etodibility. The incorporation of BMP's for drainage and erosion control must be detailed further in the FEIS. The potential for a new road to be unstable appears to be quite high, and mitigation must be proposed to conserve and protect soils.  Vegetation and Wetlands  The discussion of effects to wildlife by changes in tiparian habitat should be substantially expanded. Most wildlife species in Quitchupah Canyon rely on riparian vegetation, and the potential for loss merits exhaustive examination. All proposed alignments will severely impact the riparian zoone and will lead to the likely extirpation of most riparian guid species in Quitchupah Canyon. There are few intact wetland and riparian areas in the canyon due to the incision of the creek, and the road proposal will pass through and alter all of these remaining (intact) areas permanently. The upper elevation wetlands and riparian areas consist of herbaceous grasses, sedge, watercress, and willows. This habitat is critical for the Southwest willow finether as well as most wildlife in the canyon. The		Response 403-8  The final EIS has been revised to include a more extensive description of the BMPs associated with the proposed road design, construction, and maintenance. See Appendix B.  A design feature, borrowed from UDOT, of an extra three feet of granular borrow allows roadbases to be stable on unstable soils, such as erodible soils. See Section 2.2 Alternative B, in the FEIS.  Response 403-9  The FEIS includes specific Applicant committed measures as part of the road design for impacts to wetlands and for replacement of the riparian zone. The applicant committed measures in Chapter 2 incorporate mitigation into the road design. One measure is to fence 4.7 miles of riparian corridor to exclude livestock. This will have a beneficial effect on the riparian habitat. These measures in conjunction with the monitoring plans would preclude any residual adverse impacts to vegetation and wetland resources.  The FEIS has been designed to fulfill the NEPA process for the COE permit system. All wetlands and riparian habitats will be compensated by construction of new wetlands and riparian zones.
	vegetation or wetland resources within the Proposed Action area." How was this preposterous determination made? The general lack of specific information concerning wetland destruction and mitigation in the EIS make it difficult for the reader to determine the basis for this decision. The  1 Thid. Page 3-32 1 Ibid. Page 3-34 1 Ibid. Page 3-34		
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construction of this road has immitigable effects on the riparian area. All three of the road alternatives in the upper reaches of Quitchupah Canyon are aligned directly through the wetlands. These alignments all result in adverse impacts, which merit detailed analysis and mitigation with the aid of outside agencies.

#### Wildlife Resources

403-10

The following section will review the impacts to wildlife, as well as issues not addressed adequately in the DEIS. The effort to obtain quantifiable data for wildlife species generally lacks vigor throughout the DEIS. While the DEIS provides a few surveys or notes on a handful of species, the proposed action is insufficient to protect wildlife resources. This lack of effort to appropriately monitor and propose meaningful and viable mitigation for species (including MIS/TES) sets up said species for failure. The UEC reminds the Forest Service that they are obligated to "obtain and keep current inventory data appropriate for planning and managing the resources under [its] administrative jurisdiction." The citation of "potential" habitat does not take the place of surveys and monitoring on the Forest No viability determinations can be substantiated without specific quantifiable data pertaining to the species in the project area. The UEC requests that the Forest Service perform the proper surveys for wildlife populations in the project area, and that mitigation plans for the loss of riparian areas and wildlife species be included as part of the final EIS. In addition, the agencies have failed completely to assure that the Migratory Bird Treaty Act will not be violated. This issue was not even discussed in the DEIS. Further, the issue of habitat fragmentation, which will be substantial and significant under all action alternatives is not sufficiently analyzed.

A common shortcoming of the DEIS is the evaluation of the cumulative effects of the road construction proposal in Quitchupah Canyon. In the sections for the present species, there may be a mention of one or possibly two impacts in the document. This is not sufficient to evaluate and analyze the species viability under stress from the impacts of road construction. Some of the UEC's concerns are mentioned in the Wildlife Resources section of this letter and the remainder are addressed in the Cumulative Effects portion of this letter.

#### Big Game

403-11

The upper elevations of Quitchupah Canyon are critical habitat for deer and elk. Extensive areas in the Quitchupah drainage are described as winter range for deer herds. The Water Hollow (alternative D) Benches are listed as high value winter range for deer and elk. 10 The impacts to big game herds will be substantial, as the road will create a barrier and fragmentation in an area that is largely undisturbed. These impacts will be greater on the Saleratus Benches (alternative D), "impacts to [elk] may be greater for this alternative than B or Co<sup>11</sup>. All proposed roads cross wildlife corridors directly, and divide rangelands and habitat. The proposed road (all alternatives) will decrease the health and size of herds as the road serves as a barrier and deaths occur due to collision. Mitigation for these impacts is not described in detail in the DEIS. The UEC requests that a mitigation plan be created for alternative B and D. This should include underpasses to create corridors for the large mammals. The UEC requests that surveys be used to make a viability determination concerning the herds in the project area; no surveys or monitoring are included in the DEIS for elk and deer.

#### Response 403-10

Additional data and discussion on wildlife populations, habitat fragmentation, and surveys in the Project Area has been included in the FEIS (See Section 3.5).

The UDWR is the agency responsible for surveying wildlife; the FS and the BLM are responsible for the habitat on the lands they each administer. Another search of the UDWR records was conducted to discover any old records that would provide additional survey information on big game and upland game. Section 3.5 Wildlife Resources includes the additional data and specifically analyzes the impact of Alternative D Water Hollow Road to wintering big game on Water Hollow and Saleratus benches. The underpasses for wildlife are included in Alternative C Alternate Junction and Alternate Design. Big game underpasses are included in Alternative D Water Hollow Route. There are no records of sage grouse in or near the project area. An amphibian survey was conducted for the project area, see Wildlife Technical Report, January 2001. Reptiles were recorded incidental to other field work in the project area, see Wildlife Technical Report, January 2001.

A baseline fisheries study was completed, see Section 3.6 Fisheries and Aquatic Resources. Also see Aquatic Resources Technical Report, June 2001 for all the field data. The Water Resources section (Section 3.2) of the FEIS discusses the sediment-laden nature of Quitchupah Creek as it exists now, and the potential for additional sediment loading to occur as a result of the proposed road. Fish inhabiting Quitchupah Creek already experience turbid conditions during runoff events, and this condition would continue. Stream crossings would be designed for fish passage, as discussed in the EIS. The potential for pollutants entering the stream due to truck accidents is minimal, but could occur under rare conditions, as discussed in the EIS.

Surveys for MIS species were completed in May 2002 and this information was used in the impact analysis in the FEIS.

#### Response 403-11

The Water Hollow route (Alternative D) does bisect the migration route for big game, therefore impacts to big game movement would be mitigated through big game underpasses as discussed in Section 3.5. Recent herd data in the area has also been included in the FEIS. Mitigation measures for big game such as fencing have been included in the design of alternative D in the FEIS.

<sup>9 36</sup> C.F.R. 219.9(a)(6)

<sup>10</sup> Ibid. Figure 3-6

<sup>11</sup> Ibid. Page 3-59

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403-12	The Utah Division of Wildlife Resources (DWR) completed surveys for raptors in 2000. The surveys identified numerous nests for all proposed road alignments. The Golden eagle occurs throughout the project area, with twelve Golden eagle nests reported for Alternative B and an additional four more nests for Alternative D <sup>12</sup> . The DEIS misinterprets the USFWS guidelines for raptor spatial buffer zones. These zones should have absolutely no direct disturbance within .5 miles of the nests. Nine nests mentioned in the DEIS are "within" .5 mile of the proposed road. Further, roads and road kill are not beneficial to raptors. The DEIS mentions that raptors may be hit in collisions with coal hauling trucks. These collisions will include Bald eagles in the winter months, a species not evaluated in the DEIS. Collisions will impact the large raptors significantly, and no mitigation for the eagles is proposed in the DEIS. The UEC requests that the Forest Service evaluate the impacts to winter populations of Bald eagle, and that mitigation be created to protect these species. Mitigation for the species should include the removal of large mammal roadkill from the proposed road to an area that is safe for large raptors. The UEC requests that toad impacts to raptors be reevaluated using the proposed guidelines for raptors from the USFWS.	
403-13	Upland Game Bird  No surveys were completed for Ruffed grouse, Sage grouse, or Chukar. Are Sage grouse present on Water Hollow Bench, and have surveys been performed on Water Hollow Bench? No viability determinations are made in the DEIS concerning the upland game bird populations. The UEC requests that surveys for these species are completed as part of the final EIS, and that viability determinations be made for Sage grouse.	
403-14	Amphibians/Reptiles  Surveys were performed in some areas of Quitchupah Creek for amphibians, and DWR identified seven amphibian species that may occur in the project area. These species will be heavily impacted by road building and stream bed altering construction. The road will cause direct impacts to amphibian populations as the road will be used by all species. The UEC requests that surveys be performed in the upper elevations of Quitchupah Canyon, and that viability determinations be made for these impacted species.  All observations in the DEIS concerning reptiles were based solely on habitat, there were no surveys performed for reptiles in the project area. Due to the "potential" for a variety of species, the UEC requests that surveys be completed in order to determine what species exist in Quitchupah Canyon.	
403-15	Filling in wetlands, streambed alteration, and additional impacts to water quality <sup>13</sup> will severely impact a creek and "aquatic environment that is under stress". Two fish species listed on the DWR Utah Sensitive Species List were caught during the surveys on Quitchupah Creek. These species are the flannelmouth sucker and the leatherside chub. No mitigation or viability determinations are made concerning these fish populations, even with the surveys that were completed. The UEC  12 Ibid., Page 3-56 13 See generally Quitchupah Creek Road DEIS, Page 3-64. 14 Quitchupah Creek DEIS, Page 3-64	
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# Response 403-12

Nine golden eagle nests are within 0.5 miles of Alternatives B and C and four active raptor nests (2 golden eagle) within 0.5 miles of Alternative D. Buffer zones of 0.5 mile from nests are for nesting eagles. Road construction activities would not take place within 0.5 mile of any active golden eagle nest per seasonal restrictions or until the young have fledged. Bald eagle collisions with vehicles, due to the eagle attraction to road kill in the winter months, have been addressed in the FEIS. Mitigation for raptors includes removal of road kill from the roadway. See Section 35.

#### Response 403-13

No surveys were conducted for ruffed grouse, sage grouse, or chukar. The Water Hollow bench contains sagebrush, however, a majority of the habitat is sparsely vegetated with low sage and no sage grouse or sign were observed during general wildlife surveys. Sage grouse surveys were completed in April-May 2002 on Water Hollow Bench with negative results. The upper portion of the Project Area does contain suitable habitat for ruffed grouse, however, the habitat is constricted to the narrow riparian corridor. A greater amount of suitable habitat exists along the current haul route to the west. Chukar habitat is extremely limited in the area and chukars were not observed or heard during numerous wildlife surveys in the area.

#### Response 403-14

Of the seven amphibian species listed by the UDWR that have the potential to occur within the Project Area, only the Great Basin spadefoot toad was observed during surveys. As noted in the Section 3.4 of the EIS, the wetland area where this species was observed would not be impacted by the Project. Impact to amphibians, including habitat fragmentation has been addressed in the FEIS.

Specific surveys for reptiles were not conducted, however, no sensitive reptile species were observed during general wildlife surveys.

#### Response 403-15

Quitchupah Creek is currently an active stream that conveys significant amounts of sediment and dissolved solids, as discussed in Section 3.2. The two sensitive species listed by the UDWR are found in the lowest portion of the Alternative B proposed alignment. There are currently at least three water diversions of Quitchupah Creek for adjacent or nearby agricultural fields near the lower portion of the Alternative B alignment. As a result of decreased water flows of the creek, as well as cattle grazing within the streambed at the lower portions, a much greater potential of sediment loads and habitat destruction exists for Alternative B than any of the proposed road alternatives.

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403-15 cont. 403-16a 403-16b	requests a complete evaluation of these fish species and an analysis of the additional impacts on water quality as they apply to the sensitive populations.  **MIS and Threatened, Endangered and Sensitive Species**  **Last Chance Townsendia**  The evaluation of Last Chance Townsendia in the DEIS is the model of failure on behalf of responsible agencies. The evaluation of the all impacts for cumulative effects of the proposal on the plant is incomplete. This species is present in the project area, directly adjacent to the road according to the Vegetation Map figure 3-5. It is dismissed, as it is not in the "project corridor". Not in the "project corridor" means that it will not be paved over. However, the presence of the threatened species in the project area merits further scrutiny, rather than a quick dismissal. The proposed road sharply increases the likelihood of noxious weed infestations, which doccur primarily along the course of the toad. ATV use may leave the path of the road and venture along the sides on illegal user created roads. The cumulative effects of road construction and in turn use will have a negative effect on plant populations along the road. The UEC requests that the negative impacts on Last Chance Townsendia be assessed as part of the FEIS. Furthermore, the BLM & USFS indicated the habitat potential for six additional TES plants that were categorically dismissed in the DEIS. All of the plants need to be substantively analyzed in the FEIS.  **Southwest Willow Flycatcher**  Surveys were completed for Southwest willow flycatcher in the upper reaches of Quitchupah Canyon. The presence of a male flycatcher in suitable habitat demonstrates the value of the upper wetlands and the need to protect these wetlands from any impact. Were additional surveys conducted in 2001 for the federally endangered species? Based upon known populations of the species, this male is markedly close to known locations, and all steps must be taken to protect this population. The DEIS arrives at the conclusion that "it w		Response 403-16a Noxious weeds would be controlled in the reclaimed areas as mitigation for disturbance to vegetation, see Section 3.4 Vegetation and Wetlands. ATV currently use the existing road but would not be legal on a public highway so disturbance by ATVs should decrease under the proposed road. Se Section 3.10 Visual Resources, Recreation, and Wilderness for furth discussion of ATV use.  According to the Heritage database, Townsendia aprica has bee documented previously in the area, however it was not recorded on sit during 1999 and 2003 surveys. It was addressed in the Biologica Assessment under a May Affect — Not Likely to Affect (MANLAA determination. Road construction and use would affect vegetation in the right-of-way, but the population status of Townsendia aprica is not expected to be affected as a result of this project. The MANLAA determination applies to Alternative C only. The other alignments would not disture known habitats for Townsendia aprica. The BA addresses remaining TE species. See Appendix G for USFWS concurrence with the BA.  Response 403-16b  The flycatcher subspecies is not the listed Southwestern Willow Flycatches subspecies (See Section 3.7). Consultation with the USFWS has bee conducted and concurrence received on the determinations of the Ba (Appendix G). See also Response 411-30a (DOI).
403-16c	the FEIS review and include extensive measures to avoid all riparian areas in the upper drainage. Road alignments must be changed in order to preserve the species. The UEC also requests that the Forest Service include all information and consultation with the USFWS on the Southwestern willow flycatcher as part of the FEIS.  Mitigation proposed for the flycatcher includes the proposal to halt work during nesting and breeding times for the species. The DEIS states that 2.75 acres of habitat will be restored as per section 7 of the ESA. The FEIS should develop this proposal for protection of habitat in more detail.  Bald Eagle  As previously mentioned the Bald Eagle is not adequately addressed in the DEIS. The DEIS states on page 3-69 that the "bald eagles are not expected to occur in the area except as transient birds,"  15 Ibid., Page 3-70		The impact to riparian zones will be minimized and losses will be mitigated by creating other riparian zones and the fencing of 4.7 miles of riparian corridor to exclude livestock. See Applicant Committed Measures in Chapter 2.  Response 403-16c The BA approved by the U.S. Fish and Wildlife Service designates a May Affect Not Likely to Affect situation for bald eagles (Appendix G). Environmental Protection Measures include removal of animal carcasses from the roadway and disposal according to regulations of the State Board of Health. In addition, the roadway would be fenced, restricting wildlife access to the road. This would minimize the draw of Bald Eagles to the roadway. See Response 411-29c (DOI).

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403-16d	most commonly occurring in the winter months". The occurrence of Bald Eagles in the winter months is of specific concern of the UEC. The presence of roadkill deer and elk will draw more Bald Eagles to the project area, and this issue was not analyzed in the DEIS. There must be an analysis and mitigation for the Bald Eagle, which is particularly susceptible to vehicle collision due its size. Mitigation must include the prompt removal of all roadkill from the travel corridor in order to avoid Bald Eagle/vehicle collisions.  **Mexican Spotted Owl**  There were no surveys performed for Mexican spotted owl. "Dedicated surveys for the Mexican spotted owl were deemed unnecessary, thus were not conducted" Quitchupah Canyon fits the description for MSO habitat under the DWR habitat description. The DWR notes, "Canyons where nests occur are usually part of a rugged, complex canyon system which has several side canyons and hanging canyons. All known nesting sites in Utah are below 8000 feet elevation. Winter habitat is essentially the same as breeding habitat, though owls may seek warmer, more open canyons in the winter. "The same document notes, "potential threats to the owl include human disturbance associated with activities in canyon habitats, overgrazing and timber harvest in foraging areas, road development in canyons "18".  Quitchupah Canyon falls within the described habitat conditions for Mexican spotted owl, and the UEC requests that surveys be completed to confirm the presence or absence of this species. The Forest Service cannot substantiate the dismissal of the owl from further consideration. Habitat citations are not adequate to dismiss the owls presence in this canyon, as many positive habitat characteristics are present. Surveys for Mexican spotted owl must be completed as part of a proper evaluation in the FEIS.	Response 403-16d The application of model by a JBR MSO-certified biologist located suitable habitat which was surveyed in May and June 2002 (JBR 2002) with no indication of owls. Surveys for the Mexican Spotted Owl were initiated in the spring of 2002 according to USFWS protocol. No Mexican Spotted Owls were observed or heard during surveys.
403-16e	The proposed construction will eliminate the upper wetlands and riparian areas on Quitchupah Creek. These areas are crucial foraging areas for Townsend's big-eared bat and Spotted bat. Construction activities will directly impact bat species. There is no viability determination for the sensitive bat species in the project area. Surveys and monitoring have not been performed for these sensitive species. No mitigation is proposed for the bat species in the DEIS. The UEC requests that the Forest Service collect the proper information in order to make a viability determination for the sensitive species that are in the project area.	Response 403-16e The wetlands and riparian zone losses will be mitigated as part of the road design. See Chapter 2 for applicant-committed measures. The FS expects to continue to update its sensitive species database.
403-16f	The Flammulated owl is present in the project area, according to the DEIS. This owl is present in the Quitchupah Creck drainage and on the Old Woman Plateau. Suitable habitat for the owl also exists within the project area. No surveys were performed for this sensitive species, and there is no analysis of impacts on the owl in the DEIS. Blasting, road construction, and the continuous noise and presence of coal hauling equipment will impact potential nesting and foraging habitat for  16 Quitchupah Creek DEIS, Page 3-69 17 Endangered and Threatened Animals of Utah, Page 25. Utah State University Extension Service, DWR, and USFWS, 1998.  18 Ibid., Page 26	Response 403-16f Dedicated surveys for flammulated owls were not requested by the USFS due to the small area of suitable habitat near the Project Area. Any owls present in the suitable habitat at the upper reaches of the Convulsion Canyon drainage would likely be displaced onto adjacent habitat in the area, including the Old Woman plateau which is screened from the proposed road alignment by topography. It is possible that the adjacent habitat would not support additional displaced flammulated owls. The only impact identified is loss and disturbance to foraging areas in wetlands and riparian zones which will be mitigated. See Section 3.7.
	9	

Letter #403	U3/3U/U2 IHU 10:22 FAA 0U1 090 934/ FISH LANE NIL- FURESI	€ O D
	Flammulated owls. There was no analysis concerning the cumulative impacts of all of these activities, in addition to more human disturbance due to recreation. The UEC requests a complete analysis of the all impacts on the Flammulated owl population in Quitchupah Canyon. This should include a viability determination and plans for mitigation of the negative effects.	
	Peregrine Falcon	
403-16g	Surveys performed in Quitchupah Canyon did not find Peregrine falcon eyries. Were these surveys performed for the areas on the Water Hollow Benches? The species may be present in areas not covered as part of Alternative D.	
	Cultural Resources	
	The UEC does not support entry into or through cultural sites in the Quitchupah Canyon Road Proposal. Numerous surveys for cultural sites have been performed in Quitchupah Canyon. At least 21 sites have been identified in the canyon as cultural resources, and 13 of these sites are eligible for inclusion on the National Register of Historic Places (NHRP) under criterion D of 36 C.F.R. 60.6.	
	Alternative B proposes to "effect" six sites that are eligible for NHRP listing. This proposal also improves access and visibility in an area that is considered sacred by Native Americans. The sacred nature of the canyon will be disrupted every one and half minutes by coal trucks. The DEIS states, "The tribes involved in the Native American consultation have expressed that they would like all of the identified cultural resource sites within the project left alone and intact". The statement that	
403-17a	follows this notes that it will not be achieved, "Under 36 CFR 800 regulations, data recovery is not available to achieve a no adverse effect". The UEC requests clarification of this statement, as 36 CFR 800 does not apply in any way to cultural sites. What is the legal interpretation that the DEIS is using for this regulation and how does it apply to data recovery and no adverse effect?	
403-17b	Alternative D compromises 10 of 19 cultural sites. The majority of these sites are congregated around the Water Hollow/Quitchupah junction. Will these sites at the junction be impacted by the road? Again, no mitigation measures have been considered to preserve any of the cultural resources. This deficiency must be addressed in the FEIS.	
403-17c 403-17d	The Forest Service and BLM should also analyze the legal implications of cultural resource destruction under the Native American Religious Act. Please include the SHPOs comments for this project in the FEIS.	
	Cumulative Effects of Impacts	
403-18	It is simply mind boggling that in Chapter 3 (Environmental Consequences), the entire cumulative effects analysis is reduced to one sentence stating "Based on past, present, or reasonably foreseeable future actions, no cumulative impacts are anticipated to occur" (DEIS 3-14). This legally indefensible statement is nothing short of complete idiocy. Indeed, the DEIS failed to even include a cumulative effects analysis area and confined its one sentence 'analysis' to the project area.	
	The DEIS fails entirely to assess the cumulative impacts of the proposed actions on the affected environment in Quitchupah Canyon and the Water Hollow Benches. The impacts of proposed road alignments considered are inexact and incomplete for all species affected by the road construction	
	10	

#### Response 403-16g

There is suitable nesting habitat for peregrine falcons on the Water Hollow Benches (Alternative D), however, no peregrine falcons or eyries were observed during numerous general wildlife surveys, and UDWR aerial surveys in the Water Hollow Benches area. See Section 3.5 Wildlife Resources.

#### Response 403-17a

Section 106 Regulations 36 CFR 800.5 and 800.6 detail the process by which agencies determine whether undertakings will adversely affect historic properties and how the agencies consult to avoid, minimize, or mitigate the adverse effects in order to meet Section 106 requirements. The Advisory Council on Historic Preservation Section 106 Regulations Archeology Guidance document states: AMethods for recovering information from archeological sites, particularly large-scale excavation, are by their nature destructive. The site is destroyed as it is excavated. Therefore management of archaeological sites should be conducted in a spirit of stewardship for future generations, with full recognition of their non-renewable nature and their potential multiple uses and public values...Given the non-renewable nature of archeological sites, it follows that if an archeological site can be practically preserved in place for future study or other use, it usually should be...@ (www.achp.gov/archguide.html). The interpretation that the DEIS was trying to express was that data recovery in the form of excavation or artifact collection is considered an adverse effect. Therefore, data recovery may not be considered a viable mitigation possibility for impacts to eligible cultural resource sites.

#### Response 403-17b

Alternative D would not impact cultural resources located near the Water Hollow/Quitchupah junction. The road corridor inventoried was purposely wide (500 to 1000 feet wide) so that the route could be aligned in this area to avoid cultural resource sites.

## Response 403-17c

The American Indian Religious Freedom Act states A...henceforth it shall be the policy of the United States to protect and preserve for American Indians their inherent right to freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites [42 United States Code (U.S.C.) 1996]. Agencies are required to review their policies and procedures in consultation with raditional native religious leaders. Consultation with Native American tribes has been on-going throughout the NEPA process and the Paiute and Ute tribes accepted consulting party status. See Section 3.13.

#### Response 403-17d Letter 05/30/02 THU 16:22 FAA 801 896 9347 FISH LAKE NIL. FUKEST Ø 012 SHPO comments and concurrence with determinations of eligibility specific #403 to the cultural resource inventories are part of the approved cultural resource report files located at the appropriate land managing agency and the Division of State History. SHPO has not provided comments specific to the proposal. A "meaningful" and substantial analysis of impacts "should identify (1) the area in which 403-18 effects of the proposed project will be felt; (2) the impacts that are expected in the area from the cont. proposed project; (3) other actions - past, proposed, and reasonably foreseeable future - that have Response 403-18 had or are expected to have impacts on the same area; (4) the impacts or expected impacts from The cumulative effects have been further analyzed and revised for the FEIS these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate."19 The DEIS failed to raise numerous impacts that are present in or related and an updated table of past, present, and reasonably foreseeable actions to the project area and there is a general lack of meaningful analysis for the entire project. The appears in Appendix D. impacts of a road should be carefully quantified and evaluated, specifically in high impact areas such as riparian zones. Response 403-19 Road construction impacts are direct impacts and mitigation is set to The UEC requests that the following direct and indirect impacts be evaluated and analyzed as they 403-19 pertain to impacts on wildlife species and other resources in Quitchupah Canyon. The cumulative compensate for wetlands, riparian habitats, and upland habitats, as described effects analysis for the FEIS must evaluate and include the following (which does not claim to be an in the applicant-committed measures section of the EIS. exhaustive list): Human disturbances are indirect impacts associated with access and are Additional evaluation of impacts from actual road construction: this includes habitat directly impacted, as well as indirectly (noise from blasting); work focused in one area for a long time evaluated in the FEIS. period; and sediment discharges into streams. Golden eagles will abandon nests and territories due to the presence of construction and the resulting traffic. What other species It is proposed as mitigation that all animal carcasses (large and small) be will be negatively affected? Mitigation must be the result of the determined impacts. removed from the road to reduce scavenging by eagles and vultures (see Impacts from improved access: human disturbance of high value wildlife habitat (big game Section 2.2). Bald eagles have not been documented in the project area. dispersal), nesting disturbances, and loss of riparian habitat. Human disturbance will further contribute to Golden cagle nest abandonment, which was not evaluated in the DEIS. The DEIS is incomplete without a full evaluation of the species that will be further impacted by Population shifts must be considered in the context that the upland habitats human disturbance. are low quality with low densities of wildlife so shifts would be minor. See Impacts from SUFCO mine: almost constant noise from coal trucks, constant hazard from Response 411-5 regarding impacts of noise. There is no data on the effects trucks on road, possible accidents on road, road kill and wildlife hazards (opportunistic of emission to wildlife at the level expected along the proposed road. feeders). Elk, deer, Golden Eagle and Bald Eagle will be threatened due to traffic in the canyon. Why was this major impact not assessed in regard to Bald Eagle? Numerous other species will be exposed to collision hazards as well as noise impacts. Many species will The mine discharge into North Fork provides additional flows and the TDS abandon the area due to the noise and constant hazard from trucks. This must be explored is usually less than the natural flows in Quitchupah Creek. The impact of further and mitigation should be proposed to curb negative effects for all impacted species. this discharge will be considered in the cumulative analysis. Indirect and direct impacts to wildlife from entire shifts in populations. The DEIS states wildlife that may be impacted can simply move. While the UEC strongly disagrees with this feeble assertion, the agencies must examine the impacts of entire wildlife populations No timber sales or prescribed burns are planned in the vicinity of the project dispersing. In addition, there was no evaluation to wildlife for noise and air quality impacts. by the agencies. · SUFCO mine already discharges a considerable amount of mine pollution water into the North Fork of Quitchupah Creek. How is the discharge being mitigated? How does this contribute to the 303d stream conditions downstream and how will the impacts broaden with introduction of a new road? How will continuing discharge further impact the environment particularly relative to macro invertebrates? What timber sales or prescribed burns will be disturbing habitat adjacent to the project area? What species habitat will be affected by these activities? What will the direct and indirect impacts for air quality, noise production increase, and soil erosion be due to an additional demand in coal production for the area in general

19 City of Carmel-By-The-Sea v. U.S. Department of Transportation, 95 F.2d 892, 902 (9th Cir. 1996)

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	H CREEK ROAD FEIS	Public Comments & Responses
Letter #403	U5/3U/UZ THU 16:23 FAX 8U1 896 934/ F15H LARE NIL. FUNEST @U13	,
403-19 cont.	(reasonably foreseeable)? Coal production is intended to increase significantly in the future based upon the DEIS projections and secured contracts. This should trigger a further review of increased impacts for all resources.  How will impacts from ATV use change resulting from road construction? ATV users have demanded to keep their use of the canyon so what are the future impacts of these machines in Quitchupah Canyon? ATV use and increased ATV use due to improved access will negatively affect Golden Eagle, other raptor populations, big game species, as well as many other species on the forest. Use of these vehicles will further prompt abandonment by wildlife species in the canyon. This impact must be evaluated in the FEIS.  Subsidence and its impacts on watersheds and water quality is not evaluated in the DEIS. What is the relationship of subsidence from SUFCO mine and water quality? The resulting sediment from erosion pollutes the creek further, contributing to a high TDS rating in Quitchupah Creek. What impacts does this have on aquatic species? What species are specifically affected? How does this relate to the 303d listing for the creek?  UP&L operates a power line in the canyon. What negative effects occur due to the presence of the power lines? This was not evaluated in the DEIS. These powerlines impact raptor populations and already contribute to loss of individuals in the population. Has mitigation been proposed to retrofit the power lines to reduce this impact in the presence of numerous new impacts?  Grazing must be considered as a cumulative impact in the project area. The proposal involves impacts to numerous ranchers who graze cattle in Quitchupah Canyon. Any road proposal must include the removal of cattle to regenerate vegetation on steep slopes and around roads. The reluctance of the Forest Service, BLM and road proponents on this issue is obvious due to the controversial nature of the road with ranchers, nonetheless the grazing must stop for a revegetation period as part of mitigation for wa	Response 403-19 cont.  The ATV use may decline in Quitchupah Creek because the proposed road is not a legal trail for ATVs and no ATV trail will be constructed adjacent to the proposed road.  Subsidence impact analysis is not part of this project, see Pines Tract EIS for discussion of subsidence.  The affects of the powerline are discussed under land use. There is no documentation of raptor losses for this powerline which was built under the guidelines for protecting raptors.  The livestock use in Quitchupah Creek will be part of the cumulative analysis. The reclaimed areas will be protected from livestock grazing. The riparian area along Quitchupah Creek will be fenced for protection.  The cumulative impact of foreseeable oil and gas exploration is covered in the DEIS. The mitigation for exploration activity would be documented in the NEPA document for exploration permits. The oil and gas lease on SITLA land was cancelled in 2004.  The direct and indirect impacts of fencing will be analyzed in the FEIS.
403-20	The DEIS is replete with impacts to virtually all resources, yet fails to provide meaningful mitigation measures to alleviate the detrimental consequences of this project. The CEQ regulations implementing NEPA require that agencies analyze possible mitigation measures in defining the scope of the EIS. In addition, a mere listing of mitigation measures is inadequate. The FEIS must include an analysis of the effectiveness of each mitigation measure proposed for all resources.  Conclusion  While the SUFCO coal mine may stand to gain from the building of the proposed road, the public and environment will be significant losers. Indeed, the costs far outweigh the benefits to the public. The Forest Service and BLM should kill this project outright. Neither agency has the information required to make a legally defensible decision for this project. Considering the admission that	Response 403-20 Chapter 2 of the FEIS includes the applicant-committed measures. These applicant committed measures incorporate mitigation measures as part of the road design thereby precluding adverse impacts to the resources. Additional mitigation measures are included in the resource sections.

QUITCHUPAH CREEK ROAD FEIS	Public Comments & Responses
regardless of which alternative is chosen, coal production will increase, suggests the No Action Alternative should clearly be chosen.  The UEC requests to be kept on the mailing list for this project as it continues through the NEPA process. Please forward the FEIS (if the project proceeds) to our office.  Sincerely,  Denise Boggs Executive Director  Resource Specialist  cc: Ray Vaughan, WildLaw	Public Comments & Responses

404-1

02/26/2002 17:25

PAGE 01/02



southern utab

March 1, 2002

Linda Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, UT 84701

FAXED TO 435-896-9347

SUWA

Kay Erickson Realty Specialist BLM - Richfield Field Office 150 East 900 North Richfield UT 84701

FAXED TO 435-896-1550

RE: Quitchupah Creek Road DEIS

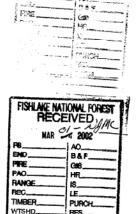
Dear Ms. Jackson and Mr. Erickson:

Thank you for providing the Quitchupah Creek Draft EIS to the Southern Utah Wilderness Alliance (SUWA) for review and further comment. As you know, SUWA has been an interested party and has been participating in this proposed project and NEPA process since 1999. SUWA wishes to incorporate by reference, the comments submitted by the Utah Environmental Congress (UEC) to you on this DEIS. In addition to UEC's comments, SUWA submits the following comments.

This proposal is being reviewed for the sole purpose of allowing a commercial coal-mining operation to shave a few miles off of its haul route in order to save a few dollars over the next several years. However, since there is an adequate, and in reality, an incredibly high-quality, road system for these trucks to use for travel to and from the mine, the request to institute a huge construction project to improve and construct a major road in Quitchupali Canyon cannot be said to meet any real need. There is no mention in the DEIS how this new road will benefit the American people. Natural resources will forever be damaged, obliterated, and impacted from

> P.O. Box 968 Moab, UT 84532 Phone: 435-259-5440 Fax: 435-259-9151 E-mail: liz@suwe.org





TCCM.

ENTRP\_

REMARKS:

COPIES SENT TO

# Response 404-1

The primary purpose of the proposed Quitchupah Creek Road is to ensure the competitive productivity of the SUFCO Mine, as a source of economic stability for Sevier County, a potential source of additional income and revenue for Emery County, and a source of high quality coal for power plants (See Section 1.1, Purpose and Need).

The 2005 National Energy Policy Act seeks to provide reliable, affordable energy to our nation's consumers, and to lessen the impact on Americans of energy price volatility and supply uncertainty. Access to coal reserves via any of the road alternatives proposed in the EIS would help to maintain supplies of diverse and traditional forms of energy; the National Energy Policy promotes such improvements in the productive and efficient use of energy.

Letter	02/26/2002 17:25	8620/01	SUWA	PAGE	02/02	
#404	-			2		
404-2	the USFS an The DEIS, v quality, soils plant species	nd the BLM are mandated to man	coal company. Allowing such a particle and a breach of the public trust under anage these public lands.  impacts to riparian areas and wething wildlife and fishes, wildlife habit onomic resources, the analyses do to these natural resources in this	oroject to which both ands, water at, sensitive		Response 404-2 The impact analysis has been revised and updated in the FEIS.
404-3	The fuel save this project poster fuel ef the decision the natural respect to poster fuel ef construction mileage? If a continue to us avings due to analysis, in the	ings of the haul trucks was one oroposal. Yet, none of the alternative ficiency. Why was this alternative have been informed as assources and the environment, if ficiencies. Rather than wreck a and a new road for huge trucks SUFCO would improve the fue see the existing and safe roads to the better fuel efficiency. Place amended/supplemental DEIS	of the major factors listed as a "re natives analyzed considered using tive not considered? Neither the p to cost savings to the company, let f the coal-hauling trucks were required ruin a beautiful canyon and cre, why not consider trucks that get le efficiency of their trucks, the truch that they already use, and still recognance address this alternative, includ-	ason" for trucks with public nor alone to pired to get sek with better gas ks could gnize a cost ling a cost		Response 404-3 The competitive coal market conditions force the coal truck contractors to use the most efficient trucks to maximize their profit margins. It is outside the scope of this project to analyze the fuel efficiency of coal trucks.
	various altern accommodate proposed char re-issued so th comment lette assessed.	afives to allow any modification thuge coal-hauling trucks travenges to the Quitchupah Creek reat the impacts to the natural reer, and in federal and state ager	eral and state agencies that have sum and USFS must deny the proposing to the Quitchupah Creck road in ling to and from the SUFCO mine and are to be considered, the DEIS sources (as discussed above, in UI cy letters) can be adequately analytic that the proposed project in the proje	sal and the n order to i. If any imust be EC's vzed and		
	Sincerely, Liz Thomas Staff attorney SUWA	MZ-				
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DEE W. JENSE President

One Utah Center 201 South Main Street, Suite 2100 Salt Lake City, Utah 84140-0021 (801) 220-4140 • FAX (801) 220-4725

February 27, 2002

Linda L. Jackson Public Affairs Officer U.S. Department of Agriculture Fishlake National Forest 115 East 900 North Richfield, UT 84701

RE: Quitchupah Creek Road

Dear Ms. Jackson,

On behalf of PacifiCorp, we would like to offer our support towards the Quitchupah Creek Road project. It is our understanding that a very thorough environmental review process has taken place and various alternatives are being considered. After reviewing the four (4) alternatives being considered, we support alternative D (Water Hollow Route). This alternative appears to have the least amount of conflict and stimulates both environmental and rural integrity.

As an integral business partner in the State of Utah, with power supply operations throughout its rural communities of which PacifiCorp serves and operates, we wish to applaud the efforts of the public and private sectors together with the regulatory process in considering the merits of this road project

With the closure of our Trail Mountain Coal Mine near Orangeville, Utah, it became necessary to secure alternative fuel sources for our Hunter Power Plant near Castle Dale, Utah. As a result, a coal supply contract was secured with the SUFCO Mine to deliver coal to the Hunter Power Plant. Should this road project come to fruition, it is our understanding that the Sevier County Special Services District will construct this public road and invoke a user's fee to the SUFCO Mine as a toll user of this public road in order to pay for its construction and maintenance.

We believe the end results of constructing this road will provide mutual benefits to the many various stakeholders. Benefits including, but not necessarily limited to the following:

The Quitchupah Creek Road reduces the total amount of coal haul trucks on nearly 50
miles of road (roundtrip) involving SR-10 and I-70, enhancing travel safety by reducing
overall length of haul distance.

Response 406-1
Comments noted.

(406)

& CIT CITCI	ATT CREEK ROAD TEIS	T uotic Comments & Responses
Letter #406		
	Linda L. Jackson February 27, 2002 Page 2	
406-1	<ol> <li>Allows for a more efficient route for coal deliveries to the Hunter Power Plant and SUFCO's other delivery destinations beyond this point.</li> </ol>	
cont.	<ol> <li>Alternative coal transport methods including the railroad system in central Utah is nonexistent or undeveloped and the delivery of central Utah coal is largely dependent on the existing highway systems.</li> </ol>	
	4. The State of Utah and its neighboring states are fortunate to have and produce some of the lowest cost electricity in the United States. This is partly due to the availability of Utah's high quality, low sulfur coal. The construction of the Quitchupah Creek Road directly addresses some of the efficiency, reliability and safety concerns of coal delivery to our Hunter Power Plant for energy production.	
	Again, we reiterate our support for the Quitchupah Creek Road project and appreciate the opportunity to comment on this proposal.	
	Respectfully,  Dee W. Jense President	
	SMCWyDocuments\QuitchupahRoad.wpd	
	406	

# **INDIVIDUAL LETTERS**

This section includes the following letters:

Letter #1 - Mark Belles

Letter #2 - Merlin H. Christiansen

Letter #5 - Thomas C. Bunn

Letter #11 - Thomas C. Bunn

Letter #96 - Jeannine Baker

Letter #97 - Morgan Robertson

Letter #99 - Robert E. Anderson

Letter #103 - Paul Niemeyer

Letter #104 - M.K. Axelgard

Letter #106 - Wesley K. Sorensen

Letter #146 - Kathy Bastian

Letter #269 - Ken Christiansen

Letter #271 - Jammi Sitterud

Letter #272 - Scott Jensen

Letter #275 - Thomas C. Bunn

Letter #299 - Don W. And Bonnie P. Keele

Letter #301 - Fred S. Jenkins

Letter #340 - Larry D. Brown

Letter #349 - Michael Jewkes

Letter #372 - Zanpher Farrer

Letter #378 - Don Jamison

Letter #379 - Paula Wellnitz

Letter #393 - Carolee Hammel

Letter #395 - J. Rick McEwen

Letter #399 - David Sucec

Letter #405 - Kent Petersen

		-
Letter #1		
	Mark Belles 9318 Willard Street	
	Rowlett, Texas 75088	
	Linda L. Jackson	
	Public Affairs Officer Fishlake National Forest	
	115 East 900 North Richfield, Utah 84701	
	Alcimeta, Otan 84701	
	11 December 2001	
	Dear Fishlake NF,	
	Thank you for the draft EIS for the Quitchupah Creek Road project. I agree with the	
1-1	proposed action.	Response 1-1 Comment noted.
	Thank you for the opportunity to comment,	Comment noted.
	Mexico Bella	
	.~-	

QUITCHUIT	AH CREEK KOAD FEIS	Fuotic Comments & Responses
Letter #2	Linda L. Jackson Public Affairs Officer Fishlake National Forest 155 East 900 North Richfield, Utah 84701	
2-1	Linda:  I read the Quitchupah Creek Road Draft Environmental Impact Statement, and decided to make a comment or two about it.  I think the original plan is the better route to go with, however I think a trail should be made along side the road that livestock could travel on, also since quite a number of people now use this route as an R.V. trail it should be constructed to allow this type of recreation to continue to take place.  I do hope you will consider these things in the plan.  Sincerely,  Machina Holbardianum,  P.O. Box 36  Emery, Utah 84522	Response 2-1 A cattle trail would be constructed on 1.5 miles of the western end of the proposed road in order to facilitate trailing where topography is restrictive. East of this, livestock would trail outside the fenced road corridor.  Although used by recreationists, the existing road/trail is not managed for off-highway vehicle (OHV) use.  The BLM Travel Plan, due out in 2006 after the release of the final RMP, will designate a system of trails for OHVs. The Richfield RMP will designate areas where proposed projects, such as OHV sites, are acceptable on BLM land.  The Fishlake National Forest OHV Route Designation Plan is scheduled to be implemented in the summer of 2006. This Plan will designate roads, trails, and open areas for the use of OHVs. The rules and designations in the Plan will close the Forest to off-route motorized cross-country travel by OHVs, except in the designated areas. This plan will improve management and enforcement of OHV use on Forest land.
	2	

January, 25, 2002

Thomas C. Bunn 88 west 500 south Wellsville, UT 84339 435 245 4987 yolyo@cache.net

Dear Ms. Jackson,

On or about May 9, 1999, I received a package from Jones and Demille Engineering of Richfield, UT. This engineering company apparently represents the SUFCO Coal mining business. Their package contained a topo map of the SUFCO Coal interests, locations of their access routes, and details of a proposed new road and modifications of the old dirt road down the Quitchupah Creek. It also contained a Quit-Claim Deed granting 1.682 acres of my ranch to the county (I read this as SUFCO Coal company). Far more disturbing than these items is a letter advising me to accept \$500.00 per acre: "... [Sevier County] recommends that you diligently consider this offer and avoid both the county and yourself the expense associated with condemnation proceedings." The land in question is MY ONLY access to the creek and the road ... \$500 is not even close to covering the impacts.

But the hidden impacts affect all citizens. On their proposed routes are significant archeological sites and petroglyphs. This is where collective voices are needed.

I received a letter from Kent R. Petersen, Chairman of the Emery County Commission, on June 1, 1999. Mr. Petersen stated the Emery Country has no plans to initiate condemnation proceedings for improving Quitchupah Creek Road. I hope this continues to be the sentiment. I have no expectation of a similar letter of assurances from Sevier County.

When I called Jones and Demille and asked about the significant archeological sites that would be in the way of their new road, they replied that, "The petroglyphs would be moved to a museum." This, I believe, is against the Antiquities Act, a Federal law.

In a recent newspaper article, <u>The Emery County Progress</u>, January 15, 2002, it identified "seven significant archeological sites" being in harm's way if this road is to built. David Sucec, Director, BCS Project, stated in the May 16, 2000 <u>The Emery County Progress</u> that the "`Quitchupah Creek Junction Rock Art Site' will be destroyed if the proposed coal haul road is allowed to be built in the canyon."

#### Response 5-1

The Quit-Claim Deed process by Jones & DeMille Engineering was prior to the EIS, and the proposed action in the EIS does not contain any condemnation process. The EIS only evaluates the right-of-way needed for the road. Rights-of-way are not granted on public lands until all of the right-of-ways are acquired to complete the road.

#### Response 5-2

Cultural resource inventories (Hauck, 1995; Billat and Crosland, 2001; Patterson and Montgomery, 2001) were performed on all of the proposed alternative routes (See Section 3.12). The cultural resource sites, including the rock art sites, are protected by the National Historic Preservation Act and the Archeological Resources Protection Act.

The proposed alignment for Alternative B, Quitchupah Creek Road, and Alternative C, Alternate Junction, was shifted south about 250 feet. This alignment would place the proposed road about 300 feet away and across the creek from the rock art panels. The new alignment would also avoid impacting known cultural sites located within the previous alignment. No additional cultural resource sites would be impacted by this reroute.

The existing road routed between the creek and the panels would be blocked and not used for access. This would tend to limit access for casual visitors



5-2

QUITCHEIT	III CKLLIX KOND I LID	1 none Comments & Responses
Letter #5		
5-2 cont.	The second alternative follows Quitchupah Road but meets Highway 10 at a different point; where, I do not know. Quoting the same January 2002 article: "This route involves fencing along the road with five underpasses for cattle and game This route has 29 archeological sites with 11 that will be impacted and six of these are considered significant." The third plan is the Water Hollow route includes, "19 archeological sites all of which can be avoided." I have serious doubts that these sites will not be impacted. The sites encompass everything in sight and within hearing distance.	
5-3	To add to the consternation, I have not received a copy of the proposals due all affected landowners. Were it not my subscription to the <a href="Progress">Progress</a> , I would have no idea what was going on. My lands could be taken away without comment or notification; so much for due process.  Try as I may to see the coal mines perspective, it comes down to just money; fifty cents a ton to be exact. There is no evidence that the known (and heaven forbid unknown) historical sites figure in any positive way with the coal mine's plans. Our heritage and pre-history are just irritants and impediments to their profits. SUFCO's apparent hiring of an engineering company to employ scare	Response 5-3 The absence of your name from our mailing list was an oversight and has been corrected. We apologize for the inconvenience.
5-4	of their plan and it reads like a bad western novel: Intimidate the landowners on their property and those who don't sell out and move on will face a "hip pocket" government commission and have their lands condemned. Either way, you lose. And we all lose!  This coal mine will be played out or made obsolete sometime in the near future. We will be stuck with permanent scars on our land, the loss of prehistorical artifacts and perspectives, and bad memories of the big company inciting division of the peaceful citizens by pushing its way towards profits. It is time for putting your feet down and taking at stand.  Just Say "NO" to SUFCO.  Sincerely,	Response 5-4  The predicted life of the mine is currently about 25 years. This could be extended if additional coal reserves are leased. Mine reclamation would minimize scars on the land. The road would become the responsibility of the county and would remain a permanent feature. Impacts to cultural resources would be minimized or mitigated prior to construction of the road.
	Thomas C. Bunn	
	(5)	

## Letter #11 January 27, 2002 Thomas C. Bunn 88 west 500 south Wellsville, UT 84339 435 245 4987 volvox@cache.net Dear Ms. Jackson, I finally received the Quitchupah Creek Road Draft Environmental Impact Statement. Having read through it I am compelled to write this addendum to my earlier letter of January 25, 2002. To sum up my thoughts, it is easy to say that this EIS is rife with errors such that I have doubts about the credibility of the entire document. And the Alternate Proposals "C" and "D" are so poorly described and are a product of such imagination that I can only assume that are only there to make the original "B" plan appear as the best choice. "No Action" is the only best choice. Let's look at some of the errors I found by a quick read. I assume there are Response 11-1 · Land Status and Ownership Map, fig. 2-2, has 360 acres attributed to Editorial changes have been made. 11-1 "Thomas E. Bunn" (cf. p. 3-84). I am "Thomas C. Bunn," thank you. 160 of the acres in section 18 are given to Castle valley ranches that belong to me, "Thomas C. Bunn et al." A forty-acre piece also in Section 18 is attributed to "Thomas C. Bunn, Carole Hammel." Her name on the deed, plat maps and taxes is "Carolee." 11-2 Under Cultural and Paleontological Resources (p. 3-103) it is stated, "No Response 11-2 A paleontological inventory was completed in July of 2002. The inventory known fossil locations have been identified into the project area." You should ask someone who has actually been on my property about the fossils there. I resulted in the recordation of 10 fossil localities. Nine of these are have found hundreds of fossils in that area and friends have found what are considered insignificant while one is rated as important. The fossil locality believed to be vertebrate fossils. rated important is no longer in-situ and represents fossils from outside the 11 - 3project corridor. This data has been added to Section 3.12 of the FEIS. My receipt of the ESI confirmed my suspicions that Alternate "C" was coming directly across my property. This splits my property into 1.25 miles to the north

and 1.5 miles to the south. This plan effectively destroys my family's plans to

camping site at the end of the "Jeep Trail" directly in the path of the proposed coal-haul road. We purchased this property with funds we gained when we sold our property in the Teasdale/Grover area that we have bought for the solitude. It soon became overrun with wealthy developers and the peaceful beauty was

ruined.

establish more formalized camping sites. You can find our primitive but supplied

Response 11-3

The Alternative C route was subsequently realigned to avoid this parcel of

11-4

If any of the engineers had actually visited the Alternate "C" area, not that I am condoning in any way trespassing on my property, they would see an area with a wash some 100 feet deep and over a quarter mile in width. Their simple solution of a couple of underpasses is suspicious. Vast amounts of fill materials or a substantial bridge would be needed to keep their trucks at 40 mph up to the intersection with SR10. The environment will not tolerate changes on this large a scale.

Much the same is true about Alternate Plan "D." This is severe topography and it is constantly changing. Two years ago a thunderstorm caused a terrific flash flood. The existing Quitchupah Road was washed out near the historic ruins, east of the petroglyphs. On my land, flood heights were near 20 feet. As complex as the Plan "D" lands are, one decent flood could cut off the road.

To reiterate; this EIS has significant data errors. The EIS also does not exhibit sufficient details in the engineering to convince me that it has been very well thought out or practical solutions designed. The two alternatives, "C" and "D," appear to be embedded distracters from the major thrust of the Plan "B," their original plan. Plan "C" destroys my family's plans for a heritage of a common place where our children, their children, and generations to come can assemble to renew relationships and revel in the beauty of this place, its geological and archeological history.

Plan "B" was the focus of my first letter and this letter is to be considered a part of it.

Just Say "NO" to SUFCO.

Sincerely, Thomas C. Bunn

# Response 11-4

The road designers are well aware of the flashy and often extreme nature of flood flows in Quitchupah Creek and its tributaries, and have accounted for that nature in their design of channel crossings. However, should a very extreme event occur, and Acut off the road@, the proposed high-use of the road would necessitate immediate repair, which would put the road back into service as quickly as possible, and would also minimize any resource damage due to the failure. This is in contrast to the existing road, where flood damages go unnoticed and unrepaired for extended periods of time.



			*
Letter #96			
	30 January 2002		
	Dear Fishlake National Fo	,	
96-1	American descent so the por roadwork is likewise troubly you build more roads, and so Creek Junction Art Site", is	pinion that the proposed roads for SUFCO proposal are um a resident of Joseph in Sevier County and of Native ossibility that more of our ancestors will be disturbed through ling to me. There are likely to be found archeological sites if some are already protected. In particular, the Quitchupah is threatened, as well as others.	Response 96-1 Cultural resource sites are protected under the National Historic Preservation Act and the Archeological Resources Protection Act. Consultation with tribal representatives (Paiute, Hopi, and Ute) is on-going
96-2	my people, the Earth is sacr	occessing plant was first introduced, I was disturbed for the ut when I heard the proposed routes, my disturbance grew. For red. I hope that you consider this viewpoint kindly and deny or more of our beloved ground.	(see Section 3.13). Impacts to cultural resource sites would be mitigated as approved by the SHPO, land administering agency, and the consulting parties.
	Thank you.  Julian  Jeannine Baker		Response 96-2 The processing of coal was not included in this study. The annual air pollution resulting from coal truck combustion of diesel fuel would
	40 North State St Joseph UT 84739 527-3738		decrease. This is based on vehicle miles traveled. The local air quality along the proposed transport route would meet air quality standards. Mitigative measures for dust control are required by Utah State regulation, during construction activities.
			during construction activities.
		, #	
		•	
	96		

T.e	tter	#97
LC	ucı	サフィ

cattle trailing

JAN. 31, 2002

DeAR Fish Lake Forest,

ON JAN. 29,2002 I Attended A Meeting IN your building concerning the road construction of the road from Sufer Minie to they 10, and the Impact of it concerning cattle trails through the Canyon.

In Attendance were Linds Jackson

Fishlake Forest, Wes Sorsen Sufco Mine

Ralph Okerland Sevier County, Morgan

Robertson, Wayne Green'l, Cyt Marie

Eardley Quitchingah Cattle Heso.

This Canyon that been primarily used HS H cattle trail to & from the Mountain through out History, It is imperative that this usage Not be disturbed, it would be

## Response 97-1

A cattle trail would be constructed on 1.5 miles of the western end of the proposed road where movement is restricted by topography. Livestock would trail outside the fenced corridor on the remainder of the proposed road, or in the case of Alternative D, along the existing road in Quitchupah Creek canyon.

Letter #97

97-1 cont.

Desatorious to stop these cattle Somewhere along the way and Hall 850 Head of Cows & Calve's without Separating babies to there Mothers, Having Cattle seaching the Canyon, & Hwy for there lost babies, After reviewing Appendix B Impact Statement the Conclusion that oxely 1/4 mile of the road would fixe to be adjusted to accommodate à passible trail, Fenced off with underposses. It was the consent of 211 that a cattle trail would Not interfere with the road, and con-Cession's Could be MAde so Cattle

(97)

QUITCITOTT	ATI CREEK KUAD FEIS	Fublic Comments & Responses
Letter #97		
	would have the right-of-way From	
	Broad Hollow to the Bottom of	
	Quithumpsh Canyon.	
97-2	It would cause extreme Hard-	Response 97-2 The right to trail cattle in the canyon would not be affected; see Section 3.8.
	Ships to the Cattle & goverator's	The right to trait cattle in the canyon would not be affected, see Section 3.8.
	to take our right to trail cattle	
	through the Canyon.	
	I have No objection's to the	
	tood, HS long HS it doesn't interfere	
	with the rights of other's	
	Thou you	
	Surely,	
	Great acception	
	97	

Letter #99		
	January 31, 2002	Response 99-1 Mitigation for the G.L. Olson Allotment will be found in Section 2.4 of the FEIS. The road would be fenced and a water system developed to supply
	Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North	troughs out on the bench for the cattle. See Section 3.8 Range Resources.  Response 99-2 A cattle trail would be constructed along 1.5 miles of the western portion of
	Richfield, Utah 84701  Dear Kay Erickson:	the proposed road where movement is restricted by topography. Livestock would trail outside the fenced road corridor for the remainder of the road, or in the case of Alternative D, along the existing road in Quitchupah Creek
	This letter is in response to the Environmental Impact Statement on the Quitchupah road.	canyon.  Response 99-3
	I am 83 years old and I was born and raised right on the Quitchupah ranch. This ranch is located right at the base of the canyon. It is presently owned by the Johnson's. All of my growing up years we herded sheep and cattle in Quitchupah, Convulsion Canyon and across the Water Hollow benches.  After returning from World War II, I was able to obtain the grazing rights on the	The road design was modified to include a fenced cattle trail where needed. Ranchers would not be forced to truck livestock. Trailing would continue normally.
	Saleratus allotment plus the GL Olsen allotment and several State School sections within the Quitchupah drainage which I depend on for a big portion of my living.  I have spent a lifetime in this canyon and feel as though my knowledge of this canyon is as vast as the people who created this EIP. There is not a rock in this canyon that I haven't crawled over. My family has over a 100 years of living in and working in this canyon.	
99-1	If by chance this proposed road does go through and it takes the alternative route, it will virtually cut off the only trail off into the Water Hollow Creek from the Water Hollow Benches. Our livestock depend on this creek for water every day, not just on weekends as the EIP suggests. This would make the Water Hollow Benches on the G.L. Olsen allotment useless to us as far as being able to graze this area. This would virtually eliminate all of our spring grazing which would be very costly to our business. We	
99-2	depend on this for our livelihood. The only way any proposed route could be feasible would be for the road to be fenced and under passes provided and a trail to and from the summer range. It would be impossible to schedule the fall gathering on weekends and holidays to fit Sufco Mines schedule as is suggested in the EIP. The cattle coming off the summer range will drift off this natural migration route any day of the week they choose. Cattle don't use calendars. This canyon has been used for a driveway to and from the summer range for a lot longer than the Sufco Mine has been in existence. I may be mistaken but I believe that if a driveway has been used for this long uncontested, it becomes a right of way. If we are forced to truck our cattle to and from the summer	
99-3	range, the additional costs would be very detrimental to our livestock operations and the actual value of our ranches will depreciate.	
99-4	The EIP states several times that in building this road it would create extra expenses for the cattlemen. If they are aware that this is the case, then I believe that the	
	99	

Q 0 1 1 C 1 1 O 1 7	III CREEK KOND I EIG	T would Comments & Responses
Letter #99  99-4 cont.  99-5	cattlemen should be compensated for the feed and AUMS that would be lost plus the expense of the shipping and the losses that will occur with coal truck and livestock collisions.  The EIP also states that the noise level in the town of Emery would be moderate. I live a block off main street and the noise that these coal trucks roaring through town has already made it almost impossible to sleep. The coal company is projecting the numbers to multiply several times in the next few years. I really don't think this noise that is being generated from these loaded coal trucks could be defined as moderate. The noise is loud as hell in my house, I can only imagine how the people who live on main street sleep.  The Quitchupah has been home to me my whole life and this Quitchupah Canyon will be around for a long time yet. I hate to see it permanently scarred by a road that is being built to accommodate a coal company that will only be in existence until their coal supply runs out. Then who will maintain this road? Or will it be abandoned and an ugly scar left to remind everyone of just how much money Sufco Coal made from this and how many cattlement was put out of business.  Sincerely,  Robert E. Anderson	Response 99-4 Costs of mitigation and the livestock facilities would be the responsibility of the proponent. The Sevier County Special Service District would provide loading/unloading/holding facilities for the ranchers trailing livestock along Quitchupah Creek and in Convulsion Canyon. The compensation for livestock involved in collisions with coal trucks or other vehicles would be guided by the open range law of Utah.  Response 99-5 There would be no increase in noise in the town of Emery as a result of the proposed road. The amount of trucks heading north through Emery will continue at current levels.  Response 99-6 The proposed road would be a county road to be paid for by the toll user (SUFCO Mine). It will not be abandoned after the mine is closed. The road will remain open to the public for recreation and travel through the area. Ranchers will have continued access to the allotments in the area. After the closure of the mine, the road would then be maintained by public (county) road funds.
	99	

Letter
#103

103-1

January 31, 2002

Mary C. Erickson Forest Supervisor Fishlake National Forest 115 East 900 North Richfield, UT 84701

RE: Quitchupah Creek Road ElS

Dear Ms. Erickson,

I am a member of several wildlife groups in Utah and one of our main goals is to help the mule deer herds in Utah recover from their present low numbers.

In the past when deer numbers were at a higher level, the deer that were killed on I-70 between Salina and the Emery turnoff was estimated to be between 450 and 500 deer a year.

Road kill is just one of the factors that adversely affect deer, but is one we need to address. It looks like the Quitchupah Creek Road would eliminate approximately 50 miles of round trip travel for a coal truck going to Emery county. The fewer miles that we can keep these trucks from traveling in deer country the lower chance they will have to kill a deer on the highway.

I am totally in support of building the Quitchupah Creek Road.

Sincerely,

Paul Niemeyer Box 954 Richfield, UT 84701

#### Response 103-1

Potential impacts to wildlife species from vehicle collisions are included in the FEIS (See Section 3.5).

(103)

Letter #104		
#104		
	January , 2002	
104-1	Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701  RE: Quitchupah Creek Road EIS  Dear Ms. Erickson:  As part of my business, I frequently travel to the SUFCO mine. I support the construction of the Quitchupah Creek Road for the following reasons:  1. It will provide a shorter route from Emery County to the SUFCO Mine and the Acord Lakes area thus saving time and fuel; 2. Create a lower probability of accidents with passenger vehicles by reducing traffic on I-70 and the Acord Lakes Road; 3. Saves wear and tear on existing highways; 4. Provides alternative route from Emery County to the Salina area, and 5. Employment opportunities at the SUFCO Mine would be more appealing to Carbon and Emery County residents.  We would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.	Response 104-1 Comments noted.
	Sincerely,	
	Address:  A Life guf  E 15 = 3e An.  Tive ustad 8450 Inc.  The Brings au tine Inc.	
	104	

QUITCHUI	ATI CREEK ROAD FEIS	Fuolic Comments & Responses
Letter #106		
	February 6, 2002	
	Ms. Mary C. Erickson Forest Supervisor Fishlake National Forest 115 East 900 North Richfield, UT 84701	
	RE: Quitchupah Creek Road EIS	
	Dear Ms Erickson:	
106-1	I am an employee of Canyon Fuel Company, LLC at the Sufco Mine. I regularly travel to Price, Utah as part of my job responsibilities. The road would benefit me personally in less travel time. It would also benefit others that travel to the mine or the Accord Lakes Area from Emery and Carbon counties in a similar manner. The most significant benefit would be to the mine and the trucking companies because of the decreased haul distance. The trucking route to the east would also be safer during the winter months because two icy summits that must be crossed using the present eastern route would be avoided.	Response 106-1 Comment noted.
106-2	I have been intimately involved with the Quitchupah Road since its need was determined almost ten years ago. I personally can see the benefit of the road to the mine, trucking companies, counties and citizens of the area. Although the Water Hollow Alternative costs additional money, I believe it is the best route and support its selection as the preferred alternative for the EIS. This route mitigates the concerns of the private landowners and the Native Americans and still meets most of the needs of the mine and trucking operations. Because of its location away from Quitchupah Creek, sediment load into the creek would be reduced over those alternatives down the canyon along side the creek. It would also avoid known cultural resources sites and allow traditional uses of Quitchupah Canyon. A cattle trail should be included in the design of the road on the Forest Service Lands. This trail could be located north of the road with the north side of the road being fenced from Broad Hollow to Water Hollow thus separating the trailing cattle and road traffic.  In summary I strongly support selection of Alternative D, Water Hollow Route as the	Response 106-2  A fenced cattle trail would be constructed along 1.5 miles of the western end of the proposed road, where topography restricts trailing options. East of that, livestock would trail outside the fenced road corridor. Livestock trailing would not be impeded by the proposed road.
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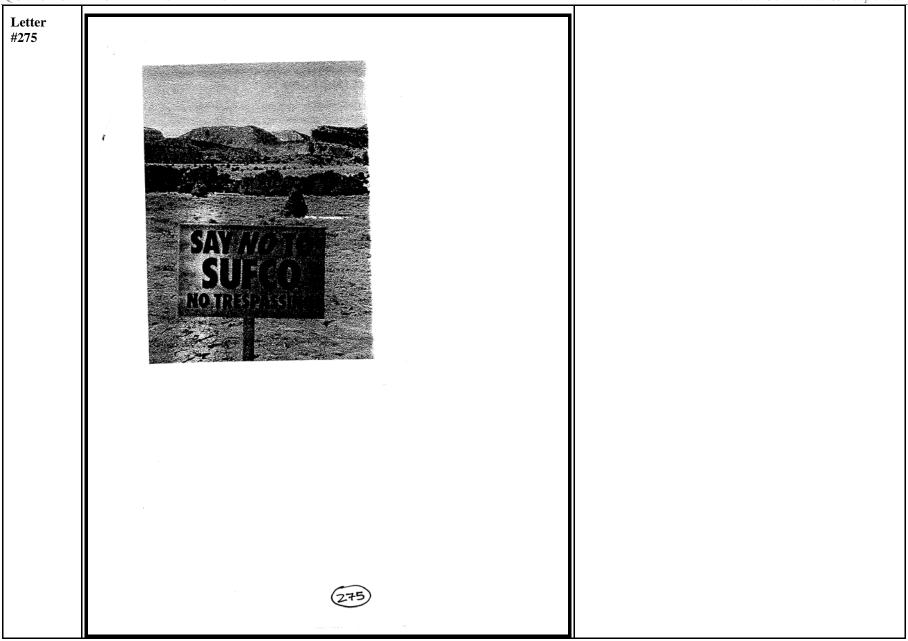
Letter	
FEBRUARY 6, 2002	
MS. MARY ERICRSON FOREST SUPERVISION FOREST SUPERVISION FOREST SUPERVISION FOR ONTH  RICHIELD, UT 84701 RE: OUTCHIPAH ROAD DEAR MS. ERICRSON: I MA A SECRETARY AT THE SUFCO MINE. I WOULD LIKE TO EXPRESS MY SUPPORT FOR THE ROAD PROM SUFCO TO EMERY COUNT. THE WATER HOLD ON ATTEMPTIC WOULD BE THE MOST PAVORBALE ROAD SINCE IT WOULD AVOID BUTHINGH OF THE MOST PAVORBALE ROAD SINCE IT WOULD AVOID BUTHINGH OF THE MINE WOULD BE THE MOST IT WOULD ALSO BEART CHE OWN OF THE MOST OF THE FORE OWN TO ANY SURVING THEM SIGNIFICANT TRAVEL THE. THE ROAD WOULD ALSO BEARTT THE VENCORS WING I FORMORE THE MINE A WATER DIFFERS IT THE SUCCESS OF THE THE UTILISES.  I CONVOLUEL WAS DE ARTED MYSES OF THE SUCCESS OF SURVO. SEVERE COUNTY HAS LOST SEVERAL BUSINESSES THE PAST YEAR THAT CONTRIBUTED TO THE AREA IN EMPLOYMENT, SALES AND PROPIERT THEM, NOT REMETICATE BUSINESS SOURCEMEND. SUPPORTION THE BUSINESSES WE HAVE IN SEVERE COUNT SECRETS EVERY CITED AS WELL.  HAMMOR SEEN GOIN AND MASSED IN THE SOURCES OF SURVO. SEVERE ELSE CAM TOU EMOY MOUNTAINS, DESERTS, PHANGA AND HONTON WINNIES FROM YOUR NOME!  OUT AND TESSORYS SEALES THAT WE HAVE SE RESPONSIBLE STRUMPS OF THIS ORDER'S FRANCE THE MADE OF THE MODERN'S AND MEMORY OF THE OUT THE SURVEY OF THE MODERN'S SOURCE OF THE ORDER'S THE SURVEY OF THE MODERN'S AND MEMORY OF THE OUT THE SURVEY OF THE MODERN'S SOURCE OF THE ORDER'S THE SURVEY OF THE ORDER'S SOURCE OFFORTUNITIES FOR BUSINESS DEVELOPMENT AND  MINE SENS SURPORTING OF ECONOMIC OPPORTUNITIES FOR BUSINESS DEVELOPMENT AND  MINE SENS SURPORTION OF OUT AMEA AS WELL.  SINCERSY,  HAND SUBJECTION OF THE MODER'S SOURCE OFFORTUNITIES FOR BUSINESS DEVELOPMENT AND  MINE SENS SURPORTING OF ECONOMIC OPPORTUNITIES FOR BUSINESS DEVELOPMENT AND  MINE SENS SURPORTING OF ECONOMIC OPPORTUNITIES FOR BUSINESS DEVELOPMENT AND  MINE SENS SURPORTING OF ECONOMIC OPPORTUNITIES FOR BUSINESS DEVELOPMENT AND	

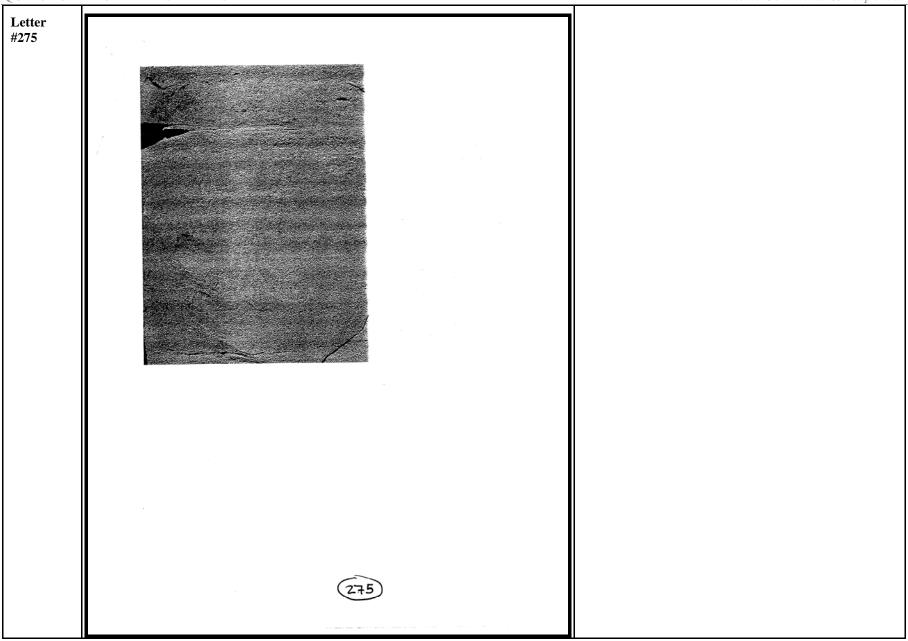
QUITCITUIT	AH CREEK KOAD FEIS	Fuotic Comments & Responses
Letter #269		
	Mary C. Erickson Jan. 18, 2002 Forest Supervisor Fishlake National Forest	
	This letter is in regards to the Quitchupah Creek Road.	Response 269-1
269-1	I'm in favor of Alternative B or Alternative C, with two modifications. These modifications are, #1 A cattle trail should be built along side the road so that the cattlernen can trail their cattle to and from the Forest Allotments. #2 An ATV trail needs to be incorporated with this cattle trail so that the ATV enthusiasts still have access to the forest. These two trails could and should be together with notices placed on it that the cattle have the right-of-way.	A fenced cattle trail would be built along 1.5 miles of the western end of the proposed road, where topography restricts trailing options. East of that, livestock would trail outside the fenced road corridor. Livestock trailing would not be impeded by the proposed road.
	It was said that there is not enough room in the canyon for such a trail and the new road. I say if they can build a dam and a bridge across Glen-Canyon they can surely build a road and trail up Convulsion Canyon.	Response 269-2
269-2	As for Alternative D, why waste money on such an expensive rout. Spend some money on the Native American concerns and help enhance the prehistoric sites.	The money saved by using a shorter haul route would still be substantial for Alternative D. See Section 3.15, Socioeconomics.
	Ken Christiansen  Ken Christiansen  Emery Stock Growers  P.O. Box 552  Emery, Utah 84522	
	769	

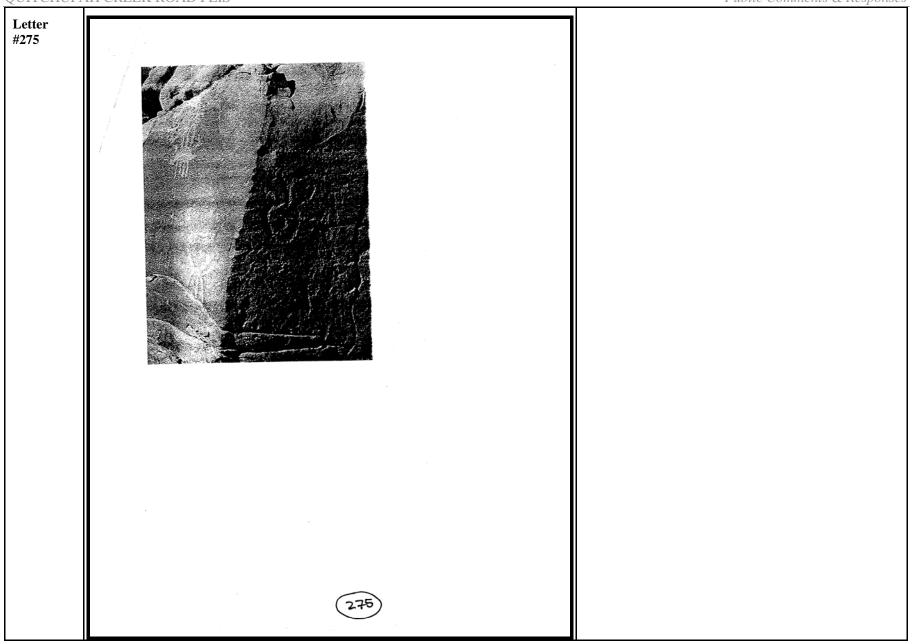
QUITCHUPA	H CREEK ROAD FEIS	Public Comments & Responses
Letter #271	Linda L. Jackson Public Affairs Officer Fishlake National Forest 115 East 900 North Richfield, Utah 84701	
	Linda:  After reading the Quitchupah Creek Road Draft Environmental Impact Statement, rereading parts of it, talking with others and reading the article in the Emery County Progress following your presentation to the county commissioners, I have decided that I am leaning toward the Water Hollow option.	<u>Response 271-1</u>
271-1	This option will cost more money, but then that's not the main issue. It will not impact any archaeological sites, and I feel that is important. These sites are hundreds of years old and need to be preserved. We enjoy going to the sites that we know about, looking at them, teaching our children and grandchildren about them. This is part of our heritage and needs to be preserved.	See Cultural Resources Section 3.12. Cultural resource sites are protected under the National Historic Preservation Act and the Archeological Resources Protection Act. Section 106 Regulations 36CFR 800.5 and 800.6 detail the process by which agencies determine whether an undertaking will adversely affect historic properties (NRHP eligible cultural resources) and how agencies consult to avoid, minimize, or mitigate adverse effects.
271-2	I would like to see a 4-wheeler/cattle trail go along side the road as it goes on up through the canyon. We enjoy riding this area, using it to go up onto the Old Woman through Jolley Mill, or going on up to the Acord Lake area, my parents have a cabin at Acord Lake and we love going there. We like to travel on over to the Duncan Mountains and then dropping off Link Canyon. We have made these loops on our 4-wheelers many times and for many years.	Response 271-2 There will be no ATV trail beside the proposed road.  A fenced cattle trail would be built along 1.5 miles of the western end of the proposed road, where topography restricts trailing options. East of that,
	We also own horses and enjoy riding them and would like to see a corridor open for us to ride up through this canyon.  Access to this area for these forms of recreation needs to be preserved. I don't feel that it	livestock would trail outside the fenced road corridor. The proposed road would not impede livestock trailing.
	would add anything to the cost of building this roadway.  Auni Aitlena  7 31	

QUITCIIUI7	AH CREEK KUAD FEIS	Fuduc Comments & Responses
Letter #272		
272-1	January 25, 2002    Mary C. Erickson   Bar   AO   Bar   Bar	Response 272-1 Comments noted.

£01101101	AII CREEK ROAD I EIS	T uotte Comments & Responses
Letter #275	y	
	t&c To: Linda L Jackson/R4/USDAFS < lijackson@ts.fed.us> cc: 02/05/02 06:21 PM Subject: quitchupah: the story never ends	
	Hello Linda,	
	I well used Sunday to better document the historic artifacts along and near the Quitchupah Creek. It is so beautiful and peaceful there. I also took the opportunity to post, on my property, signs reflecting my opinion of this issue (see attached). These too I photographed and distributed via e-mail to various interested and should-be interested parties.	Response 275-1
275-1	Another look at the DEIS reveals problems with the Grazing Allotments (fig. 3-7). These rights belong to me, not E. Olsen, and are reserved for my use as I see fit. In fact, I have had discussions with local ranchers in an effort to keep unwanted and not permitted livestock off my property. I have arrangements with a nearby rancher for him in my stead to maintain the fences, postings, and utilize the property for our privately held stock.	Editorial changes have been made.
	I hope this information is applicable and useful to the EIS. Sincerely,	
	Tom	
	,	
	·	
	275	







QUITCHUE	PAH CREEK ROAD FEIS	Public Comments & Responses
Letter #299	2/6/02	
	To: Linda Jackson	
	Re: Quitchupah Creek Road	
299-1	At the Jan.8,02 Public Lands Council the BLM representative stated	
299-1	that Quitchupah Creek was not used much by A.T.V.s/ Where is the	
	monoriting data to back up this claim?	Response 299-1 There are no designated ATV trails in or adjacent to the project area so no
	You claim there isn't enough room in the upper 2 miles to allow an	data has been collected on ATV use. See Section 3.10 Visual Resources,
299-2	A.T.V. trail, but a four lane interstate was built through Spotted Wolf.	Recreation, and Wilderness for explanation of current ATV use in Quitchupah Creek.
	Geographically, A.T.V. access to the mountain in this area is very	Quiteriupuii creek.
	limited. We need A.T.V. access in Quitchupah Creek because loop trails	Response 299-2 A fenced cattle trail would be built along 1.5 miles of the western portion of
	are important for A.T.V. trails management.	the proposed road, where topography restricts trailing options. East of that,
	A.T.V.s are an important part of this areas lifestyle and economy.	livestock would trail outside the fenced road corridor. Livestock trailing would not be impeded by the proposed road.
	If anybody knows the economic value of A.T.V.s it is Sevier County.	would not be impeded by the proposed road.
	We are not at that stage yet, but we do have the nucleus of a trails system	This trail would not be available for ATV use.
	and are hoping to expand it using existing roads and trails.	
	You didn't address an Alternative that would by-pass the towns in $\mathcal{H}^{\varrho \omega}$	Response 299-3
299-3	Emery County. U-10 is overloaded with local traffic. U-10 was not	An alternative that included a portal loadout facility in Muddy Creek was
	designed and built for this increased truck traffic.	considered but is not feasible for the SUFCO Mine because the interior
299-4	None of your Alternatives address the problem of trucks speeding 500pt	mine coal transport system is aligned west and south away from Link Canyon and Muddy Creek. See Section 2.6.
2)) 4	through Emery County towns.	Pagnanga 200 4
	Barney and Robinson, along with Utah Highway Partol and the Emery	Response 299-4 Analyzing the potential for speeding trucks is outside the scope of this
	County Sheriff Dept. are not enforcing posted speed limits. Fully one	project.
	half of the empty south bound coal trucks are exceeding the 45 mph speed	
	limit in Ferron by 20mph.	Perpanse 200 5
	When was the last time you saw an officer pull over a coal truck?	Response 299-5 Section 106 Regulations 36CFR 800.5 and 800.6 detail the process by
	Barney or Rebinson trucking are not controlling their employees.	which agencies determine whether an undertaking will adversely affect historic properties (NRHP eligible cultural resources) and how agencies
299-5	You can't destroy historic or prehistoric sites. you can't build a	consult to avoid, minimize, or mitigate adverse effects. See Section 3.12.
	road without fences. A coal haul road in Quitchupah Creek will destroy	Fences will be constructed. See alternative discussions in Sections 2.2, 2.3,
	(299)	and 2.4.

QUITCHU.	PAH CREEK ROAD FEIS	Public Comments & Responses
Letter #299	2	1
	an area that is used for family recreation. Leavitt should build reads	
	not Monuments.	
200.6	Your Draft E.S. is totaly based on menetary consideration for SUFCO	Response 299-6 The primary purpose of the proposed Quitchupah Creek Road is to ensure
299-6	Mine. It is not right for Sevier County to reap all the positive benefits	the competitive productivity of the SUFCO Mine, as a source of economic stability for Sevier County and a potential source of additional income and
	and Emery County all the negitive.	revenue for Emery County, as well as provide a source of high quality coal
	Until the above is addressed, keep your coal in Seiver County.	for power plants (See Section 1.1, Purpose and Need).
	Don W. and Bonnie P. Keele PO Box 217 Ferron, Ut. 84523	The Mine is an important component of local economies. The presence and stability of the SUFCO Mine, and the families who support it, guarantee a continued demand in both Sevier and Emery counties for bank loans, mortgages, utilities, and other goods and services. This adds to the
		economic stability of both counties. See Section 3.15, Socioeconomics.
	·	
	299	

Public Comments & Responses	
Response 301-1  The final EIS includes discussions using several ways to contrast alternatives in regard to water resources. These include: number of stream crossings, risk of culvert failure, and proximity of road to perennial stream reaches. Many of the BMPs, applicant-committed measures, agency-committed measures, and general construction/design components of	
1 EIS includes discussions using several ways to contrast es in regard to water resources. These include: number of stream, risk of culvert failure, and proximity of road to perennial stream Many of the BMPs, applicant-committed measures, agency-	

Letter #340	RECEIVED  FEB 11 2802 FS	
	Ms, Jackson,  I appreciate the opportunity to express my opinion on the proposed quitchneh	Response The SUFC
	road construction. I want to express that in my opinion option A is the only option. Please allow me to state my case.	dependant
340-1	#1. Sufco mine has flatly stated ( in the proposal book) That they are going to produce up to eight and a half million tons of coal a year irregardless, if they get a shorter route they will make more money, But they will still make alot of money without it (the road). EMPLOYMENT IS NOT AFFECTED!!!	2002. The presence a guarantee loans, more
340-2	#2. Near the bottom of convulsion canyon is a set of ancient petroglyphs and pictographs, This camp was thought to be a major migration camp for anywhere from 2500 to 6000 years. The Anazazi,the desert culture,the fremont and the shoshone ute are all thought to have used this particular camp regularly.Options B and option C would definitely place an unacceptable impact on this site.To desecrate this site I believe would be not only an act of ignorance but criminal!	Response The alignt C, Alterna
340-3	#3.On option D ( Which is the best of the worst)Meaning most acceptable if the money and the power behind this project areoverwhelming and option a is realy not an option. A large wintering herd of both deer and elk use this bench (Water hollow)Heavy coal truck traffic would undoubtably raise havoc and the mortality of wintering animals would be unbelievable. But animals can someday robuild a	would pla from the r known cul additional The existi
340-4	herd, The Indian sites once they are gone will be gone forever). I don't believe there has been any archaeological sites of any real significance, But there has been some and given the known heavy use of this area by the ancients and the little explored area I believe a real professional review and study of the area would be in order.	This modi
340-5	#4. Option E. Yes you read this right. One option that should be looked at very seriously is the use of a conveyor belt. Conveyor belts can be very environmentally friendly, (leaving no permanent scarring on the land and as animals learn quite	Response The design mitigate th 2.4 and Se
	340	Response A cultural the Water

#### 340-1

O Mine was Utah's largest coal producer in 2004. SUFCO and trucking companies provided 20 percent of the non-farm nt and 28 percent of the personal income in Sevier County in e mine is an important component of local economies. The nd stability of the SUFCO Mine, and the families that support it, continued demand in both Sevier and Emery counties for bank tgages, utilities, and other goods and services. This adds to the stability of both counties. See Section 3.15 Socioeconomic

#### 340-2

nent for Alternative B, Quitchupah Creek Road, and Alternative te Junction, was shifted south about 250 feet. This alignment te the proposed road about 300 feet away and across the creek ock art panels. The new alignment would also avoid impacting tural sites in that area located within the previous alignment. No cultural resource sites would be impacted by this reroute.

g road routed between the creek and the panels would be blocked d for access. This would tend to limit access for casual visitors.

ication to Alternatives B&C will preclude the direct impacts of a c road next to the rock art sites.

#### 340-3

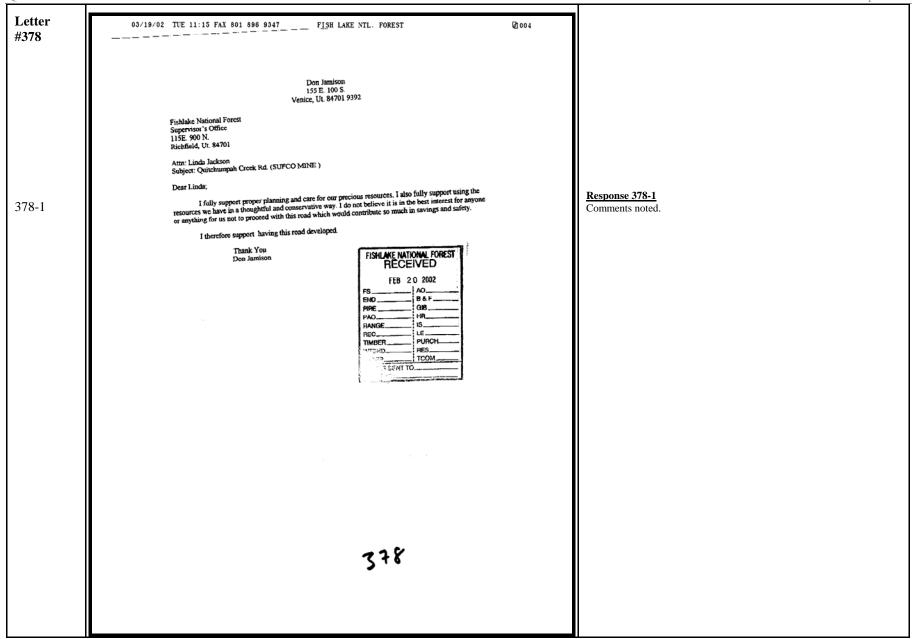
of Alternative D in the FEIS includes fences along the road to e impact of the proposed road across the benches. See Section ction 3.5.

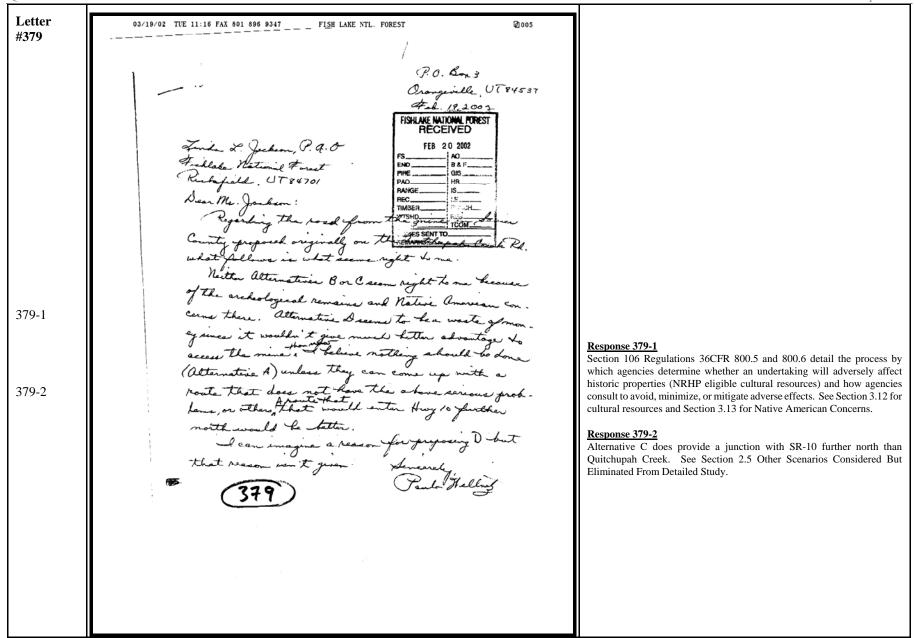
resource inventory (Billat and Crosland, 2001) was conducted on the Water Hollow route (Alternative D). The proposed right-of-way corridor was routed to avoid cultural resource sites. See Section 3.12.

QUITCHUTT	IN CREEK NOAD FEIS	Fuolic Comments & Responses
Letter #340		Response 340-5 The terrain below the mine is too steep for a conveyor system, see Section
340-5 cont.	rapidly to adjust to the low noise.) looks to me that the only reason Sufco would not want a conveyor belt is they would actually have to pay for its installation and maintenance. The options on the road, Sufco has someone else flipping the bill.  They are wanting to do this on the cheap. Which is understandable from their perspective, But as a tax payer is unnacceptable.Conveyor belts are feasable and if they say different,	2.6. A portal loadout facility in Muddy Creek is not feasible for the SUFCO Mine because the interior mine coal transport system is aligned west and south away from Link Canyon and Muddy Creek.
340-6	they are only attempting to spin the story to their own benefit.  In summing up my statement I would like to say please let's be very careful in what we do right now. Posterity will hold us accountable for any mistakes we make.The Quitchpah road is not needed!Seveir County does not want to build it up to udot standards.	Response 340-6 See Section 2.2 Alternative B. The proposed road would be built to AASHTO and UDOT standards.
	Larry Brown p.o.box 221 Orangeville Utah 84537	
	Feb. 8 2002	
	340	

QUITCHUPAL	I CREEK ROAD FEIS	Public Comments & Responses
Letter #349	January , 2002 HISHLANE NATIONAL PORTEST RECEIVED	]
	Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701  RE: Quitchupah Creek Road EIS  Dear Ms. Erickson:  As part of my business, I frequently travel to the SUFCO mine. I support the construction of the Quitchupah Creek Road for the following reasons:	
349-1	<ol> <li>It will provide a shorter route from Emery County to the SUFCO Mine and the Acord Lakes area thus saving time and fuel;</li> <li>Create a lower probability of accidents with passenger vehicles by reducing traffic on I-70 and the Acord Lakes Road;</li> <li>Saves wear and tear on existing highways;</li> <li>Provides alternative route from Emery County to the Salina area, and</li> <li>Employment opportunities at the SUFCO Mine would be more appealing to Carbon and Emery County residents.</li> <li>We would appreciate your consideration and approval of the proposed Quitchupah Creek Road specifically Water Hollow, Alternative D.</li> <li>Sincerely, Mineral Water Hollow, Alternative D.</li> </ol>	Response 349-1 Comments noted.
	Rox 214  Crange Alle, U+ 845 37  Milliand U Texakes.	
	349	

QUITCHUP	AH CREEK ROAD FEIS	Public Comments & Responses
Letter #372		
	Sobruary 11 2002	
372-1 372-2	Earpher Farrer pebeze 46 350 south main Orangerille Uluch Stinda Jackson public affairs officer Stishlake National Seriest 115 east 900 north Richfield Uligh 84701  En Regards to the survey on the proposed coal haul route in quitchpah canyon S reant to voice my firm opposed to this project. S am a native american a proud member of the shochene tribe. Sout my mother is Ulie. And many members of my family are Ulie, So you see this project is personal to me, Seing that many of the Archaelegical sites in this particular canyon are of the shoshone ute cultures. Obtes that many of the Archaelegical sites in this particular canyon are of the shoshone ute are much rarer in this area. Although we know this area was a very important and vital area to my people.  S find it very hard to believe that in this day and age that the federal government would even consider placing this kind of heavy impact, and damaging who knows hove much precedes history. St should be so obvious to anyone that the main veritings from the ancient ones in the canyon are truly significant. This camp was used for thousands of years by all the different tribes that were in this area. And they left their markings on the wall. S believe this indeed is a sacred place.  One oction A to me is the only option. Option d is much better than b or c but without an extensive	Response 372-1 Cultural resource sites are protected under the National Historic Preservation Act and the Archeological Resources Protection Act. Section 106 Regulations 36CFR 800.5 and 800.6 detail the process by which agencies determine whether an undertaking will adversely affect historic properties (NRHP eligible cultural resources) and how agencies consult to
372-2	environmental impact study. And an extensive search for all unknown significant archalogical sites in the area eption of should not be considered either. Please realize how special this campon is, Pow one can touch the past the solitude of the earyon today with the silence only broken by the occasional scream of a red hawk, or call of a blue jay as one penders to oneself of how it must have been to the ancient ones that left their marks on the walls.  Sincerely,  Aarphar Sarrer Schoshone tribal member	properties (NRHP eligible cultural resources) and how agencies consult to avoid, minimize, or mitigate adverse effects. Consultation with tribal representatives (Paiute, Hopi, and Ute) is on-going. The Paiute and Ute tribes have accepted consulting party status and would assist in determining mitigation measures for impacts to cultural resource sites and Native American concerns.  Response 372-2 All of the proposed alternatives are analyzed in the EIS. A cultural resource inventory (Billat and Crosland, 2001) was conducted on the Water Hollow route (Alternative D); see Section 3.12. The proposed right-of-way corridor for Alternative D was routed to avoid cultural resource sites.





	CREEK ROAD I EIS	1 uout Comments & Responses
Letter #393	FISHLANE NATIONAL POREST	]
393-1 393-2	Linda Jackson Public Affairs Officer Fishlake National Forest 115 E. 900 N. Richfield, UT 84701  Dear Linda,  Dear Linda,  This letter is in regards to the EIS documents that were compiled to discuss several proposals made to pave a short cut road from the SUFCO mine to Highway 10. Although two of these proposals involve property owned by myself and Thomas Bunn, I would like this letter to be more than just a "not in my own back yard" view point.  I am a native Utahn born in Sevier County. Although most of my life has been spent north of Sevier County, the deserts of Utah have become the place where I truly belong. I understand why the citizens of Sevier County want to accommodate the SUFCO mine as it employs many from the county. But does this new road bring in any new revenue or jobs? As an ordinary citizen I cannot understand why Sevier County is in favor of this road. It is true that the coal will be delivered sooner to the power plant, but won't that only mean the mine itself will be played out sooner? If the amount of coal is a finite number, eventually Sevier County will be left with the upkeep on a road that will not be bringing in revenue, only taking it away. It would seem to me that the money spent for the proposed road would be better spent	Response 393-1 See Section 3.15 in the FEIS for socioeconomic impacts of the proposed road.  Response 393-2 The coal from SUFCO Mine is high quality and low sulphur and should be
	addressing new forms of clean energy and jobs for our progeny. The road is very short-sighted and not for the common good of the Citizens of Sevier County.	used in existing coal-fired power generation to lower emissions.  Response 393-3
392-3	Of course much could be written about how this new road would affect the flora and fauna and destroy the ancient artifacts, but I will leave those writings for the experts. As a Utahn who loves the undisturbed desert, I am opposed to Proposal B, C and D. The only proposal that will serve the common good of all Utah citizens is A, "no action" and this is the only proposal in this EIS document that I am in favor of.  Sincerely,  Carolee Hammel  88 West 520 South  Wellsville, UT 84339	Comment noted.

Letter #395	03/19/02 TUE 11:16 FAX 801 896 9347FISH LAKE NTL. FOREST	Ø006	1
395-1	Mary C. Erickson Forest Supervisor USDA Forest Service Fishlake National Forest 115 East 900 North Richfield, UT 84701  RE: Quitchupah Creek Road EIS  Dear Ms. Erickson:  Although, the construction of the Quitchupah Creek Road would not effect my current route to work, it does have the potential to relieve some of the congestion on the Acord Lakes Road. As an employee at the SUFCO mine, I appreciate accident on the Acord Lakes Road. As an employee at the SUFCO mine, I appreciate the advantages the construction of this road would provide and am in favor of the development of the Quitchupah Creek Road (Alternative D).  Thank you for your time and consideration of this letter.  Sincerely,  Address:  J. Rick M.S. Ewe.  Address:  J. Rick M.S. Ewe.  Address:  J. Rick M.S. Ewe.  395		Response 395-1 Comments noted.

#### Letter #399

399-1

### COMMENTS AND RECOMMENDATIONS David Succe

#### QUITCHUPAH CREEK ROAD PROJECT DRAFT ENVIRONMENTAL IMPACT STATEMENT

After reviewing the Draft EIS and some early correspondence from SUFCO to the private land owners in Quitchupah, attending a couple of hearings, and talking with SUFCO's representative, it is apparent to me that the road SUFCO is requesting is not critical and certainly not worth its costs to the public lands, the wildlife and the cultural resources.

Therefore, I ask that you choose Alternative A, No Action.

As I understand the proposal, SUFCO is asking for a permit(s) to sacrifice a canyon, some of its wild and domestic life and degrade and destroy some irreplaceable and significant prehistoric panels of rock art just so that they can increase their profit.

If SUFCO does not get a new road, their only consequence is that their profit margin will not be quite as generous...they will still turn a profit under the no action alternative.

While the DEIS seems to present SUFCO interests in detail, I feel that it does not address some critical issues adequately—issues that should be fully considered in making your choice of Alternatives.

#### SOCIOECONOMIC

Under all alternatives, the DEIS lists a key socioeconomic issue to be an increase in mine production, employment and revenues (presumably for SUFCO) with increased economic stimulus for Emery County.

However, the economic reality is that SUFCO's good fortune comes at the expense of Emery County—the coal mines, miners, and truckers as well as its tax base from the loss of the Hunter contract. There is a chance in the future that Carbon County mines may also lose market share to SUFCO. Even SUFCO's considerable projected savings in fuel costs (an admirable goal) would result in a loss of income to fuel distributors and truckers as well as taxes.

Because it is only a matter of a few decades until the coal seams are exhausted, short-term economic schemes, such as SUFCO's, must be closely questioned when they result in the destruction of the long-term cultural and economic benefits. Benefits that may well be sustained over hundreds of years if the natural resources and rock art are protected (Fremont Indian State Park had more than 94,000 visitors in year 2000).

# 399

#### Response 399-1

The SUFCO Mine was Utah's largest coal producer in 2004. The mine is an important component of local economies. The presence and stability of the SUFCO Mine, and the families that support it, guarantee a continued demand in both Sevier and Emery counties for bank loans, mortgages, utilities, and other goods and services. This adds to the economic stability of both counties. There is assertion that it would be an economic stimulus for Emery County since there is an anticipated need for truck service in Emery due to the proximity to the SUFCO Mine. See Section 3.15 of the FEIS.

Letter
#399

399-2

399-3

#### TRANSPORTATION

Regardless of which Alternative is selected, the drivers using SR-10 in Emery County will have to further suffer the inconvenience of the heavy two-trailer truck two-way traffic. And, as indicated in the DEIS, the wear and tear from the increased and frequent heavy trucks (43 tons filled) will necessitate a significant upgrade of SR-10.

Rather than spend the money to build a destructive new road to facilitate SUFCO's coal trucks and profit increase, the better solution would be to upgrade and add truck lanes to SR-10 from Fremont Junction at I-70 to the turnoff for the load out near Wellington. This would allow citizens a less stressful drive on SR-10 and, since the road is already established, would result in far less damage to the environmental and cultural resources.

SUFCO should not ask the citizens of Utah to pay for the upgrade and lane addition because the road-work would be for SUFCO's economic benefit and are required because of the heavy impact of their coal haul trucks. SUFCO should provide the funding (tolls) for the upgrade, addition and maintenance of SR-10 (as they do for the Acords Lake road and will do for the proposed roads).

#### WILDLIFE RESOURCES

The DEIS indicates that each road alternative will impact wildlife and domestic livestock beginning with the construction and continuing for the life of the road with truck-wildlife encounters.

A major wildlife concern, not addressed in the DEIS, is the fragmentation of the large mammal habitat by the Quitchupah or the Water Hollow roads. The Wasatch Plateau has already been carved into smaller sections by the Huntington Canyon coal haul road (SR-31), the Joe's Valley Road (SR-29), and the Ferron Canyon Road (FR-701/022).

A heavy traffic road in Quitchupah (Alternatives B and C) would create an imposing physical and noise barrier, 24 hours a day, 250 days a year—seriously fragmenting the habitat of large mammals (elk, deer, moose, bear and mountain lion) from 1-70 to Ferron Canyon Road by about 40 %. The Water Hollow Road (Alternative D) would result in less fragmentation (about 20%) but will result, as indicated by the DEIS, in even greater numbers of truck/wildlife and livestock encounters.

The narrow range of benefits, for a very few, does not justify the loss of vital habitat, critical and high value winter and summer range for elk and deer, the disruption of raptor nesting, certain deaths of all species from truck encounters, and the threats to unknown and known threatened and sensitive species such as the leatherside chub and the flannelmouth sucker.

2



#### Response 399-2

Under all the alternatives SR-10 will need an upgrade to facilitate continued public use and truck traffic, but the build alternatives remove the impact of coal truck traffic on the south portion of SR-10. SR-10 is under the authority of UDOT and they would decide how to upgrade SR-10 and whether to add truck lanes. The SR-10 project would be a separate project from the proposed road.

#### Response 399-3

We have reviewed the EPA document on highway development and refer to it in the revised sections of the FEIS to better reflect the barrier and fragmentation potential of the proposed road. The revision will be in the context that due to the poor quality soils in the project area and the sparseness of the vegetation most of the habitats would be classified as low quality. The revision discusses the effects of noise in confined sites, the frequency of truck traffic, the human activity, and the physical barrier the road may be in the ecosystem.

Ambient or background noise levels along the proposed haul road and SR10 are typical for outdoor and rural locations. As stated in the DEIS, additional noise from construction and haul truck activity associated with the proposed action will impact area near the haul truck route. Noise levels of outdoor and rural areas of 35 and 56 dBA were measured, respectfully. Future noise level estimates of 60 and 74dBA were noted in the DEIS.

Noise pollution=s effects on wildlife is not well studied, but recent research from the U.S. Air Force and U.S. Department of the Interior, relates given noise levels to the effects on certain types of animals. The most relevant published noise effects on animals are listed below:

Noise Source	Noise Level	Subjective Description
Pronghorn	77 dBA	Escape and Running
Various species	132 dBA	Anxiety-like behavior
Rats, rodents	105 dBA (continuous)	Hearing loss;
	95 dBA	Suppressed thyroid activity
Mouse	110 dBA (intermittent)	decreased in circulating eosinophils; adrenal activation
	105 dB(continuous)	longer time intervals between litters; miscarriages, lower weight gain

While none of these limited studies relate directed to the study area, pronghorn behavior with 77 dBA are directly effected by noise levels of that magnitude. Similar results can be assumed to occur for large game animals indigenous to the canyon area.

The noise section addresses canyon walls inasmuch as saying, noise levels will likely double 200 meters away, where haul truck noise is allowed to dissipate in all directions. Further, AAn increase in these predicted levels would be experienced is noise is prohibited ... such as, having a canyon wall immediately to one side of the haul road.@

### Letter #399

399-4

#### CULTURAL RESOURCES

While the DEIS represents the Native American relationship with the cultural and natural resources (all strongly against any degradation), it is less adequate in its description and discussion of the prehistoric rock art, particularly the North Fork site.

The North Fork rock art site centers on the large outcropping at the junction of North Fork and Quitchupah Creek. The site area also includes the West Point site (across North Fork runoff, up canyon) and extends, along the rock wall north of the creek, about 300 yards down canyon, to the Ghost Figure site.

The North Fork site is a major rock art outdoor museum in the area and one of the most important multi-cultural sites in Utah. A unique rock art site, images are found on three sides of the outcropping. Also unusual for Utah rock art, the major panel of prehistoric images is on north side and were mostly created in variations of Archaic period forms, particularly the Barrier Canyon and Glen Canyon Linear styles. Both ancient styles, the Barrier Canyon style may be Utah's longest-lived image-making style (ca. 5,600 BCE – CE 300).

The most typical Fremont images appear on the south facing walls. There are a smaller number of pecked and painted or drawn images in the Ute and, perhaps, Paiute styles—although there are some images, whose style is atypical, that could very well be from their hands.

Another unusual feature of this site is a few pecked and painted figures that are defined with elements from different styles (Barrier Canyon – Fremont). These mixed-style, or transitional, figures may well prove to be critical in tracing the transformation of a people from hunting and gathering to a more settled lifeway.

Judging from the style and levels of image repatination (a more recent pecking is dated 1903), the Quitchupah Creek North Fork site may have been a repository for sacred images for, conservatively, four or five thousand years. And, indeed, Southern Paiute and Ute bands maintain that Quitchupah Creek is still a sacred place for them, with specific reference to the rock art.

The DEIS indicates that North Fork is marked as a pullout site during the construction of the proposed road. Considering the expanse of the North Fork site, a pullout, with parking of equipment and deposits of supplies, would severely degrade the environment of the site. The construction vibrations and blasting would threaten the rock art site (particularly the West End of the outcropping that is unstable).

The proposed road would, most likely, destroy the Ghost Figure ridge and its two or three panels. In addition, it has been reported that two additional red ghost figures have been covered over by the present road that cuts across the ridge. It is likely these two figures can be recovered if the present road is rerouted or deconstructed.

Although the DEIS does acknowledge the certain possibility of increased vandalism because of the easier access the proposed road would provide; it does not address the serious

3



#### Response 399-4

The North Fork rock art site, as well as other cultural resource sites in the area, have been further detailed and analyzed in the FEIS. The North Fork site represents several cultural periods. The text in Section 3.12 regarding the cultural resources within the project area has been expanded to better describe the uniqueness and significance of the sites, as well as possible impacts, including secondary impacts, to cultural resource sites. The realignment of the proposed road in the area of the rock art sites now precludes the North Fork site area as a pullout during construction.

The proposed alignment for Alternative B, Quitchupah Creek Road, and Alternative C, Alternate Junction, was shifted south about 250 feet. This alignment would place the proposed road about 300 feet away and across the creek from the panels. The new alignment would also avoid impacting known cultural sites located within the previous alignment.

The existing road routed between the creek and the panels would be blocked and not used for access. This would tend to limit access for casual visitors. This modification to Alternatives B&C would preclude the direct impacts of a busy public road next to the rock art site.

Vibrations due to construction activities, blasting, and coal truck traffic would not adversely affect the cultural resource sites, specifically the rock art sites. The proposed road route was realigned about 300 feet away from the rock art complex. Rock art and structural cultural resources are the site types potentially most susceptible to impacts from minimal movement/damage that could possibly lead to structural failure and loss of the resource. As presented in the BLM Handbook H-3150, illustration 10, the BLM has determined that peak velocities at the base of standing cultural structures and rock art should not exceed 0.75 inches per second. The BLM's distance of set-back, for example, is 205 feet for a 10 lb charge buried 10 feet. The set-back for a 10 lb charge at the surface increases to 1,013 feet. There are no proposed blasting areas within 1,200 feet of the rock art complex. BLM guidelines for blasting set-backs would be utilized.

Normal environmental conditions to which these resources are subjected on a daily basis and which cause similar effects include wind, temperature changes, humidity changes, and vibrations from aircraft and vehicles. Failures of prehistoric structures and rock art occur as natural events a function of ever-present forces of erosion and decay. Precipitation combined with freeze-thaw cycles and other natural processes can impact the stability of these sites.

Dust from road construction would be suppressed through use of water or an approved dust suppressant. There is no conclusive evidence that emissions would impact the rock art.

## Letter #399

399-4 cont.

consequences of the heavy truck traffic will have for the rock art images.

A very significant threat to the rock art, although not addressed in the DEIS, is the oily diesel exhaust and coal dust blow-off, which would settle on the surface of the rock art panels.

Given the heavy truck traffic (1000 plus trips every 24 hours, 250 days a year) and the close proximity of the road to the rock art (survey stakes within 35 feet of the outcropping); it is absurd to imagine that the rock art images would not suffer from fallout.

Art conservators have known, for half a century, that many granite and marble monuments are seriously degraded from the effects of smog, airborne particles, and in a surprisingly short period of a few decades (since sandstone is much softer than granite, the degradation here could well be quicker). The dissolution of the rock surface cannot be reversed or corrected. Neither would cleaning be possible because of the fragility of the paintings and sandstone surface.

Finally, the environment/atmosphere that is necessary to experience the aesthetics and sacredness of this site must be natural and peaceful—whether the visitor is an admirer of rock art or a Native American pilgrim. The presence of a paved road and the attendant noise and impact of the large trucks would be grossly inappropriate.

Considering how narrow the benefits would be for a very few, how great the loss to a relatively pristine canyon and wildlife population, and the level of degradation and destruction of significant and irreplaceable prehistoric rock art sites (and the diminishing of their long-term cultural and economic value); the appropriate choice is Alternative A, No Action.

Thank you or your consideration.

David Sucec 832 Sego Avenue Salt Lake City, Utah 84102 801-359-6904 davidsu@slkc.uswest.net

#### Response 399-4 cont.

Coal truck trailers would be covered and subjected to an air bath after loading to minimize fugitive coal dust. Quantifying air pollution damage is difficult. The damage function is the quantitative relationship relating the influence of a pollutant, such as diesel emissions, on a receptor-like stone. The mathematical form of the damage function depends on whether the ambient air concentration or deposition rate is the measure of pollution and also on the measure of damage, such as surface loss or chemical denudation (Livingston 2002). Air pollution standards are created for human health protection utilizing ambient air quality standards. A measure of deposition rate would be more appropriate in determining the affects on rock art.

Motor vehicles generate three major pollutants: hydrocarbons, nitrogen oxides, and carbon monoxide. Nitrogen oxides are produced from buring fuels, including gasoline and coal. Ground-level ozone is a product of reactions between chemicals that are produced by burning coal, gasoline, other fuels, and chemicals. Vehicles and industries are the major sources of ground-level ozone. Particulate Matter is any type of solid in the air in the form of smoke, dust, and vapors, which can remain suspended for extended periods. Particulates are produced by many sources, including burning of diesel fuels by trucks, fossil fuels, road construction, and industrial processes such as mining. Volatile Organic Compounds (VOCs) are organic chemicals, many of which are hazardous air pollutants. Vehicle emissions are an important source of VOCs. As stated above, these are human health standards which do not apply readily to the damage function. Therefore stating that these emissions/pollutants are within or out of acceptable range does not imply the same in regards to affects to rock art in the area. Sufficient data does not exist and therefore does not appear in the analysis.

4



#### Letter #405 RICHFIELD RANGER DISTRICT RECEIVED MAR - 4 2002 March 1, 2002 RANGER. BUSINESS MGMT. RECREATION Linda L. Jackson Public Affairs Officer RANGE Fishlake National Forest TIMBER 115 East 900 North WILDLIFE. Richfield, Utah 84701 Subject: Quicthupah Creek Road Draft Environmental Impact Statement Dear Linda: I have reviewed the subject document and I appreciate the opportunity to comment on the document. I did not find any defects in the document and would recommend it be issued as the final EIS. I recommend Alternative D - Water Hollow Alignment be adopted. Even though it is the more expensive alignment it eliminates the most important problems while still providing significant economic benefits. I will list the major problems I see with the other alternatives. Alternative B - Quicthupah Creek Road: The road will have significant impact on the major rock art panel which is very 405-1 important to the people of Emery County. The amount of truck traffic using the road and passing so close to the panel will make it very difficult to enjoy the panel. 405-2 The junction with SR 10 will be at the bottom of a very steep hill and will probably cause significant traffic delays. Alternative C - Alternate Junction with SR 10 The road will have the same impact on the rock art as Alternative B but the junction with SR 10 will be much improved. Thank you for the opportunity to make these comments. Kent Petersen PO Box 935 Ferron, UT 84523

#### Response 405-1

The proposed Alternate B and C road corridor has been realigned in the area of the rock art panels. This new alignment would place the proposed road about 300 feet away and across the creek from the panels. The alignment would also avoid impacting known cultural sites located within the previous alignment. This modification to Alternatives B&C would preclude the direct impacts of a busy public road next to the rock art sites.

#### Response 405-2

See Section 3.14, Transportation. Currently traffic congestion due to coal trucks is experienced on the Acord Lakes Road and SR-10 at the steep grade on Quitchupah Hill. The proposed road would alleviate traffic congestion on Acord Lakes Road and SR-10 from Fremont Junction to Quitchupah Creek Bridge. The Alternative B junction with SR-10 would include modifications such as turn lanes, expansion of the bridge across Quitchupah Creek, and an acceleration lane up Quitchupah Hill in order to alleviate traffic congestion. Alternative C would alleviate traffic congestion on Quitchupah Hill as it junctions with SR-10 to the north.

**Chapter 7** 

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**Chapter 8** 

Glossary

#### 8.0 GLOSSARY

Action: All activities or programs of any kind authorized, funded or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. An action includes the granting of permits, contracts, or leases.

Action Area: All areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

Affected Environment: Surface resources (including Socioeconomic elements) within or adjacent to a geographic area that could potentially be affected by proposed activities. The environment of the area to be affected by the Alternatives under consideration.

Air Quality Classes: Classifications established under the Prevention of Significant Deterioration portion of the Clean Air Act that limits the amount of air pollution considered significant within an area. Class I applies to areas where almost any change in air quality would be significant, Class II applies to areas where the deterioration normally accompanying moderate, well-controlled growth would be permitted, and Class III applies to areas where industrial deterioration would generally be allowed.

Airshed: A volume of air defined by geographical boundaries.

Alignment: The specific, surveyed route of the road.

Alluvial Material: Material transported and deposited by running water in riverbeds, lakes, alluvial fans and valleys. Includes clay, silt, sand, gravel, and mud.

Alternative: A combination of management prescriptions applied in specific amounts and locations to achieve a desired management emphasis as expressed in goals and objectives. One of several policies, plans, or projects proposed for decision making. One Alternative need not substitute for another in all respects.

Analysis Area: A delineated area of land subject to analysis.

Animal Unit Month: The amount of forage necessary to sustain one cow and one calf or its equivalent for one month.

Applicant Committed Measures: Steps planned or taken toward the accomplishment of a purpose.

Aquatic Ecosystem: All organisms in a water-based community plus the associated environmental factors.

Aquatic Wildlife: Animals who live in a water-based ecosystem.

Aquifer: A layer of geologic material that contains water.

Attainment Area: An airshed or volume of air defined primarily by geographical boundaries in which the concentrations of criteria pollutants do not exceed the National Ambient Air Quality Standards.

Average Annual Daily Traffic: The total volume passing a point or segment of a highway facility, in both directions, for one year, divided by the number of days in the year.

Beneficial Effect: A "Beneficial Effect" decision is warranted when a project or activity will substantially improve the habitat or status of a listed species or its habitat.

Best Management Practices: Best management practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices. BMPs also include treatment requirements, operating procedures, and practices.

Big Game Winter Range: The area available to and used by big game (large mammals normally managed for sport hunting) through the winter season.

Big Game: Larger species of wildlife that are hunted such as elk, deer, moose, and mountain lion.

*Biological Diversity*: The diversity or numbers of species that collectively represent the living plants and animals within a local, regional, or continental landscape.

*Biological Assessment*: Information prepared by or under the direction of the Federal agency concerning listed species that may be present in the action area and the evaluation of potential effects of the action on such species and habitats. The purpose of the biological assessment is to evaluate the potential effects of the action on listed or proposed species or designated or proposed critical habitat, and determine whether any such species and habitats are likely to be adversely affected by the action. Biological Assessments are conducted for major Federal construction projects requiring an EIS.

*Biological Evaluation*: A documented Forest Service activities in sufficient detail to determine how an action or Proposed Action may affect any threatened, endangered, proposed, or sensitive species.

*Biological Opinion*: An official report by the USFWS or National Marine Fisheries Service (NMFS) issued in response to a formal Forest Service request for consultation or conference. It states whether an action is likely to result in jeopardy to a listed species or adverse modification of its critical habitat.

*Biotic Condition Index*: Relative values of a biological community based on a comparison of the observed to an "expected" community at the area of interest.

Broadcast Seeding: Distribution of seed by a fan or hand spreading.

Browse: That part of the current leaf and twig growth of shrubs, wood vines, and trees available for animal consumption.

Bureau of Land Management: The U.S. Department of the Interior agency responsible for managing most Federal government subsurface minerals. It has surface-management responsibility for Federal lands designated under the Federal Land Policy and Management Act of 1976.

Candidate Species: Any species not yet officially listed but that are undergoing a status review or are proposed for listing according to the Federal Register notices published by the Secretary of the Interior or the Secretary of Commerce.

Contrast: The effect of a striking difference in the form, line, color, or texture of an area being viewed.

*Colluvial*: Consisting of a mixture of soil and angular fragments of rock which have accumulated at the foot and on slopes of mountainsides under the influence of gravity.

Council on Environmental Quality: An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews Federal programs for their affect on the environment, conducts environmental studies, and advises the President on environmental matters.

Critical Habitat: Specific areas within the geographical area occupied by the species on which are found those physical and biological features (1) essential to the conservation of the species; and (2) which may require special management considerations or protection. Critical habitat shall not include the entire geographic area which can be occupied by the threatened and endangered species.

Crucial Habitat: A biological feature that, if lost, would adversely affect the species.

Cultural Resources Inventory: A field inventory designed to locate cultural resource sites within an area.

Cultural Resources Inventory Classes:

<u>Class I</u> - An existing data survey (i.e. file search). This is an inventory of a study area to (1) provide a narrative overview of cultural resources by using existing information; and (2) compile existing cultural resource site record data on which to base the development of the research designs and studies.

<u>Class II</u> - A sampling field inventory designed to locate, from surface and exposed profile indications, all cultural resource sites within a portion of an area so that an estimate can be made of the cultural resources for the entire area.

<u>Class III</u> - An intensive field inventory designed to locate, from surface and exposed profile indicators, all cultural resource sites within a portion of an area.

Cultural Resources: Those fragile and nonrenewable remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works or art, architecture, and natural features that were of importance in human events.

Cumulative Impact: The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.

dBA - The sound pressure levels in decibels measured with a frequency weighing network corresponding to the A-scale on a standard sound level meter. The A-scale tends to suppress lower frequency that occur below 1,000 Hz.

Decibels - Units for describing amplitude of sound frequencies to which the human ear is sensitive.

*Dispersed Recreation*: That portion of outdoor recreation use that occurs outside of developed sites in the unroaded and roadbed Forest environment (i.e., hunting, backpacking, and camping).

Displacement: As applied to wildlife, forced shifts in the patterns of wildlife use either in location or timing of use.

*Diversity*: (1) The relative abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area; or (2) The distribution and abundance of different plant and animal communities and species within the area covered by a Land Resource Management Plan (36 CFR Part 219.3).

Duration: The length of time an activity and its impacts will be taking place.

*Ecosystem*: All organisms in a community plus the associated environmental factors.

Effects (also see Impacts):

Direct Effects - Caused by the action and occur at the same time and place.

<u>Indirect Effects</u> - Caused by the action later in time or farther removed in distance but still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related affects on air and water and other natural systems, including ecosystems.

Endangered Species: Any species in danger of extinction throughout all or a significant portion of its range.

*Environmental Analysis*: An analysis of Alternative actions and their predictable short and long-term environmental effects that include physical, biological, economic, social, and environmental design factors and their interactions.

*Environmental Assessment*: A concise public document prepared to provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a FONSI. It includes a brief discussion of the need for the proposal, Alternatives considered, environmental impact of the Proposed Action and Alternatives, and a list of agencies and individuals consulted. Prepared by the responsible Federal agency consistent with 40 CFR 1508.9.

Environmental Impact Statement: A formal public document prepared to analyze the impacts on the environment of the proposed project or action and released for comment and review. An EIS must meet the requirements of NEPA, CEQ guidelines, and directives of the agency responsible for the proposed project or action.

*Erosion Hazard*: The probability of soil loss resulting from complete removal of vegetation and litter. It is an interpretation based on potential soil loss in relation to tolerance values.

*Ephemeral stream.* Typically dry, except during direct and short-term response to storm runoff or snowmelt; is not influenced by the water table.

*Erosion*: (1) The wearing away of the land surface by running water, wind, ice, or other geological agents including such processes as gravitational creep; or (2) Detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

Exotic: Foreign, not native

*Exploration:* Drilling, excavating, and geological, geophysical or geochemical surveying operations designed to obtain detailed data on the physical and chemical characteristics of Federal coal and its environment including the strata below the Federal coal, overburden, and strata above the Federal coal, and the hydrologic conditions associated with the Federal coal.

*Fault*: A fracture in bedrock along which there has been vertical and/or horizontal movement caused by differential forces in the earth's crust.

Faulting: Relative displacement of adjacent bedrock along a fracture.

Federal Land Policy and Management Act of 1976: Public Law 94-579 signed by the President on Management October 21, 1976. Established public land policy; to establish guidelines for its administration; to protect for the management, protection, development, and enhancement of the public lands; and for other purposes.

Federal Lands: Lands owned by the United States, without references to how the lands were acquired or what Federal agency administers the land, including surface estate, mineral estate and coal estate, but excluding lands held by the United States in trust for Indians, Aleuts or Eskimos.

Floodplain: The lowland and relatively flat area adjoining inland waters including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

Fluvial: A comprehensive term describing river processes.

*Forage*: All browse and herbaceous foods that are available to grazing/browsing animals.

*Forest Service*: The agency of the United States Department of Agriculture responsible for managing National Forests and Grasslands under the Multiple Use and Sustained Yield Act of 1960.

*Fossil*: The remains or traces of an organism or assemblage of organisms that have been preserved by natural processes in the earth's crust exclusive of organisms that have been buried since the beginning of historical time.

Fracture: A crack, joint, fault, or other break in rocks.

Fugitive Dust - Dust particles suspended randomly in the air from road travel, excavation, and other similar types of operations.

*Game Species*: Any species of wildlife or fish for which seasons and bag limits have been prescribed and that are normally harvested by hunters, trappers, and fishermen under State or Federal laws, codes, and regulations.

*Graben*: An elongate, relatively depressed crustal unit or block that is bounded by faults on its long sides.

Gradient: The slope (rise/run) of a surface or stream profile.

*Habitat Type*: An aggregation of all land areas potentially capable of producing similar plan communities at climax.

*Habitat*: A specific set of physical conditions that surround a single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

*Human Environment*: The factors that include, but are not limited to, biological, physical, social, economic, cultural, and aesthetic factors that interrelate to form the environment.

*Impact (See Effects)*: The effect, influence, alteration, or imprint caused by an action.

*Indirect Effects*: Secondary effects that occur in locations other than the initial action or significantly later in time

*Intermittent stream.* Flows are generally sustained for 6 months or more during the year, and are dry or have very diminished flow seasonally. During a portion of the year, flows are influenced by direct interaction with the water table.

Invertebrate: An animal lacking a spinal column.

*Irretrievable*: Use or consumption of a resource that is neither renewable nor recoverable for use by future generations.

*Irreversible*: A primary or secondary impact that limits the future options for a resource.

*Key Observation Point*: Critical viewpoints that are usually along commonly traveled routes or at other likely observation points.

Landslide: A perceptible downhill sliding or falling of a mass of soil and rock lubricated by moisture or snow.

*Leasable Minerals*: Minerals acquired only by lease and generally include oil, gas, coal, oil shale, sodium, potassium, phosphate, native asphalt, solid and semi-solid bitumen, and deposits of sulfur.

*Lease:* A Federal lease, issued under the coal leasing provisions of the mineral leasing laws, which grants the exclusive right to explore for and extract coal. In provisions of this group that also refer to Federal leases for minerals other than coal, the term Federal coal lease may apply.

License to Mine: A license issued under the provisions of 43 CFR Part 3440 to mine coal for domestic use

*Licensee*: The holder of an exploration license.

Long-Term: Describes impacts that would occur over a 20-year period or more.

May Affect - Likely to Adversely Affect: A "May Affect - Likely to Adversely Affect" determination is warranted when it is found a project or activity will have effects on a listed species or critical habitat, and those effects are likely to adversely affect listed species or critical habitat.

May Affect - Not Likely to Adversely Affect: A "May Affect - Not Likely to Adversely Affect" determination is warranted when it is found a project or activity will have effects on a listed species or critical habitat, but those effects are not likely to adversely affect listed species or critical habitat.

Mitigation: Includes:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree of magnitude of the action and its implementation.
- (c) Rectifying the impact of repairing, rehabilitating, or restoring the affected environment.

- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

*Multiple-Use*: Management of the surface and subsurface resources so that they are jointly used in the manner that will best meet the present and future needs of the public without permanent impairment of the productivity of the land or the quality of the environment.

National Environmental Policy Act of 1969: Public Law 91-190. Established environmental policy for the nation. Among other items, NEPA requires Federal agencies to consider environmental values in decision-making processes.

National Forest Management Act: A law passed in 1976 as amendments to the Forest and Rangeland Renewable Resources Planning Act that requires the preparation of Regional and Forest plans and the preparation of regulations to guide that development.

National Forest System: All National Forest Systems lands reserved or withdrawn from the public domain of the United States; all National Forest System lands acquired through purchase, exchange, donation, or other means the National Grasslands and land use projects administered under Title III of the Bankhead-Jones Farm Tenant Act (7 U.S.C. 1010 et seq.); and other lands, waters, or interests therein which are administered by the U.S.D.A. Forest Service or are designated for administration through the U.S.D.A. Forest Service as a part of the system (16 U.S.C. 1609).

*National Historic Preservation Act*: An act passed in 1966 to establish a program for the preservation of Historic Properties throughout the Nation.

*National Register of Historic Places*: A listing of architectural, historical, archaeological, and cultural sites of local, state, or national significance established by the Historic Preservation Act of 1966.

No Action Alternative: No action or activity would take place. Another definition is where ongoing programs described within the existing Land Management Plan continue. No decision would be made and no leases would be offered.

No Effect: A "No Effect" determination is warranted when a project or activity will not have any effect on a listed species or its critical habitat.

Non-attainment Area: for any regulated air pollutant, an area for (1) which is shown by monitored data or is calculated by air quality modeling or any other method determined by the administrator to be reliable, to exceed any national standard of ambient air quality for the regulated air pollutant; (2) which is designated as a non-attainment area by the governor; and (3) which is promulgated as a non-attainment area by the administrator.

Noxious Weeds: Rapidly spreading plants that cause a variety of major ecological impacts to both agriculture and wild lands.

Off-Road Vehicle: Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, snow, ice, marsh, swampland or other natural terrain. It includes, but is not limited to, four-wheel drive or low-pressure-tire vehicles, motorcycles and related two-wheel vehicles, amphibious machines, ground-effect, air-cushion, or ATVs.

Overstory: The portion of a plant community consisting of the taller plants on the site; the forest or woodland canopy.

*Paleontology:* The branch of geology concerned with the study of the fossil remains of animal and plant life of past geological periods.

Particulates: Small particles suspended in the air and generally considered pollutants.

*Perennial Stream.* Flows approximately 90-100 percent of the time; has a significant base flow component derived from groundwater sources.

Prehistoric Site: Archaeologic sites associated with American Indians and usually occurring before contact with Europeans.

Prevention of Significant Deterioration: A classification established to preserve, protect, and enhance the air quality in National Wilderness Preservation System areas in existence prior to August 1977 and other areas of National significance while ensuring economic growth can occur in a manner consistent with the preservation of existing clean air resources. Specific emission limitations and other measures, by class, are detailed in the Clean Air Act (42 U.S.C. 1875, et seq.).

*Prime Farmland*: Land that is best suited to producing food, feed, forage, fiber, and oilseed crops. It has the soil quality, growing season, and moisture supply needed to economically produce sustained high crop yields if acceptable farming methods are used. Prime farmland produces the highest yields with minimal inputs of energy and money, and farming it result in the least damage to the environment.

Proposed Endangered Species: A taxon which has already been formally proposed to be listed as endangered.

Range Allotment: A designated area of land available for livestock grazing upon which a specified number and kind of livestock may be grazed under an allotment management plan. It is the basic land unit used to facilitate management of the range resource on National Forest System lands administered by the U.S.D.A. Forest Service.

Rare Species: A plan or wildlife species, or subspecies, that is limited to a restricted geographic range or one that occurs sparsely over a wider area.

*Reasonably Foreseeable Development Scenario*: The prediction of potentially future actions, occurring in within the cumulative assessment area, within a designated period of time.

*Reclamation*: Returning disturbed lands to a form and productivity that will be ecologically balanced and in conformity with a predetermined land management plan.

*Record of Decision*: A document separate from, but associated with, an environmental impact statement that publicly and officially discloses the responsible official's decision on the Proposed Action.

Recreation Opportunity Spectrum: Land delineations that identify a variety of recreation experience opportunities in six classes along a continuum from primitive to urban. Each class is defined in terms of natural resource settings, activities and experience opportunities. The six classes are: Urban, Rural,

Roadbed, Natural, Semiprimitive Motorized, Semiprimitive Nonmotorized, and Primitive.

Research Natural Area: An area in a natural condition which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The area is set aside to preserve a representative sample of an ecological community primarily for scientific and educational purposes.

Residual Adverse Impacts: Those effects remaining after implementation of mitigation measures.

*Restore*: To bring back landscape to a former or original condition or appearance.

*Revegetation*: The reestablishment and development of self-sustaining plant cover. On disturbed sites, this normally requires human assistance such as seed bed preparation, reseeding, and mulching.

Riffle: A shallow section of stream with rapid current and a surface broken by gravel, rubble, or boulders.

*Right-of-way*: An accurately located strip of land with a defined width, point of beginning, and point of ending. It is the area within which the user has authority to conduct operations approved or granted by the landowner in an authorizing document, such as a permit, easement, lease, license, or Memorandum of Understanding.

*Riparian*: Riparian areas consist of terrestrial and aquatic ecosystems, those lands in a position to directly influence water quality and water resources, whether or not free water is available. This would include all lands in the active flood channel and lands immediately upslope of stream banks. These areas may be associated with lakes, reservoirs, estuaries, potholes, marshes, streams, bogs,, wet meadows, and intermittent or permanent streams where free and unbound water is available.

Roadbed, Natural: A recreation opportunity classification term describing a land area that has been predominately a natural appearing environment with moderate evidence of sights and sounds of humans. Concentration of users is moderate to low. Roads of better than primitive class are usually with 0.5 mile. A broad range of motorized and nonmotorized activity opportunities are available. Management activities, including timber harvest, are present and harmonize with the natural environment.

*Roadless*: Refers to the absence of roads that have been constructed and maintained by mechanical means to ensure regular and continuous use.

Scenic Quality Classes: The designation (A, B, or C) assigned a scenic quality rating unit to indicate the visual importance or quality of a unit relative to other units within the same physiographic province.

*Scoping Process*: An early and open public participation process for determining particular issues to be addressed in an environmental document and for identifying the significant issues related to a Proposed Action.

Sensitive Species: Those plant or animal species that are susceptible or vulnerable to activity impacts or habitat alterations.

Significant: An effect that is analyzed in the context of the Proposed Action to determine the importance of the effect either beneficial or adverse. The degree of significance is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment and when the affects on the quality of the human environment are likely to be highly controversial.

Subgrade Strength: The portion of the roadway below the base and surface and its ability to carry loads. Surface Strength: The portion of the roadway that includes the pavement and base material and its ability to carry loads.

Terrestrial Wildlife: Animals who live in a land-based ecosystem, as opposed to water or air.

*Threatened Species*: Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

*Total Dissolved Solids*: Salt or an aggregate of carbonates, bicarbonates, chlorides, sulfates, phosphates, and nitrates of calcium, magnesium, manganese, sodium, potassium, and other cations that form salts that are dissolved or present in water.

*Track-out:* The particles, such as coal dust, left behind along the road as a truck travels through an area. These particles settle on the truck or are picked up on the tires during loading activities.

Vibration: The simple periodic to-and-fro motion of a body, etc.

*Visual Quality Objectives*: Based upon variety class, sensitivity level, and distance zone determinations. Each objective describes a different level of acceptable alteration based on aesthetic importance. The degree of alteration is based on contrast with the surrounding landscape.

<u>Preservation</u>: In general, human activities are not detectable to the visitor.

Retention: Human activities are not evident to the casual Forest visitor.

<u>Partial Retention</u>: Human activities may be evident, but must remain subordinate to the characteristic landscape.

<u>Modification</u>: Human activity may dominate the characteristic landscape, but must, at the same time, use naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in middleground or background.

<u>Maximum Modification</u>: Human activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.

<u>Enhancement</u>: A short-term management alternative that is completed with the express purpose of increasing positive visual variety where little variety now exists.

*Visual Resource*: The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal of the unit.

*Visual Resource Management System*: The BLM system for evaluating and classifying visual resources. The system uses line, form, color, texture, scale, and space to categorize lands into one of four classes:

<u>Class I</u>: Preservation Class II: Retention

Class III: Partial Retention Class IV: Modification

Watershed: An entire area that contributes water to a drainage system or stream.

*Wilderness*: An area designated by congressional action under the 1964 Wilderness Act. Wilderness is defined as undeveloped Federal land retaining its primeval character and influence without permanent improvements or human habitation.

*Wind Erodibility Group*: Indicates a soil's susceptibility to wind erosion based upon its particle resistance as described by the percentage of dry soil aggregates larger than 0.033 inches. These values range from 1 to 8 with 1 being the most erodible.

Wetlands: Lands where saturation with water is the primary factor determining the nature of soil development and the kinds of animal and plant communities living under or on it surface.

**Chapter 9** 

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	14, 3-47, 3-48, 3-50, 3-59, 3-69, 3-72, 3-73, 3-76, 3-77, 3-85,
5_1 5_2 8_2 8_3 8_4 8_5	

# APPENDIX A LEGAL DESCRIPTIONS OF EACH BUILD ALTERNATIVE

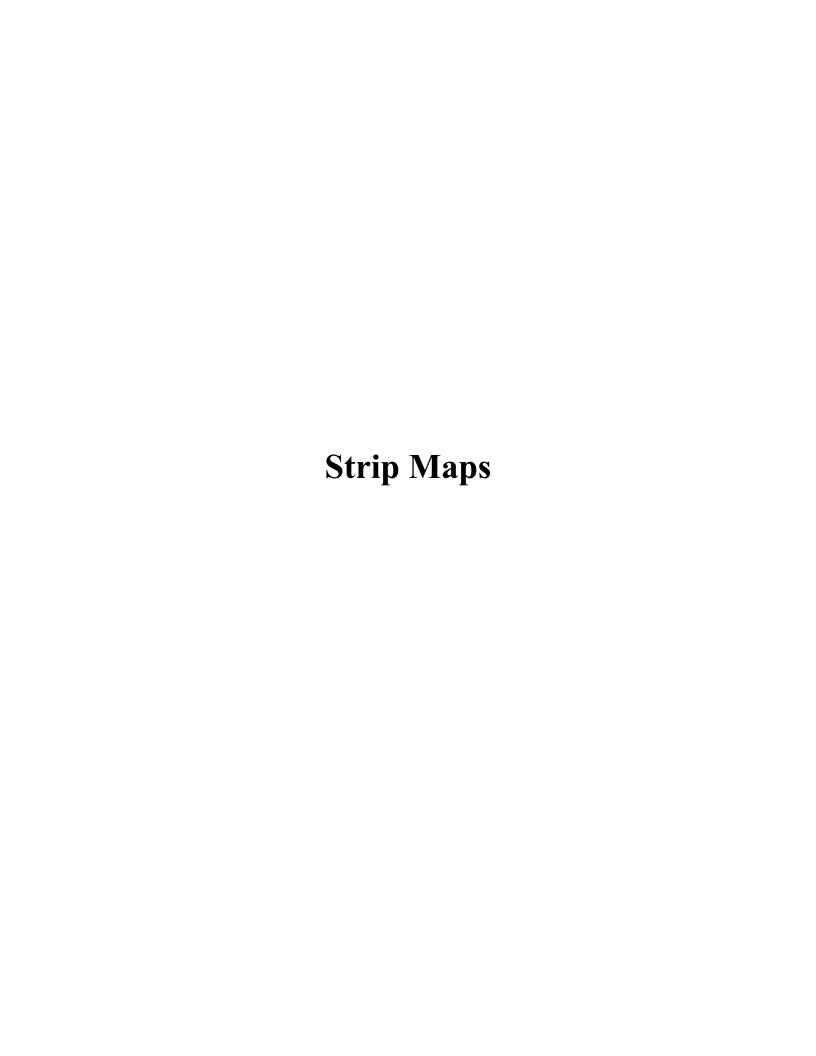
#### Appendix A

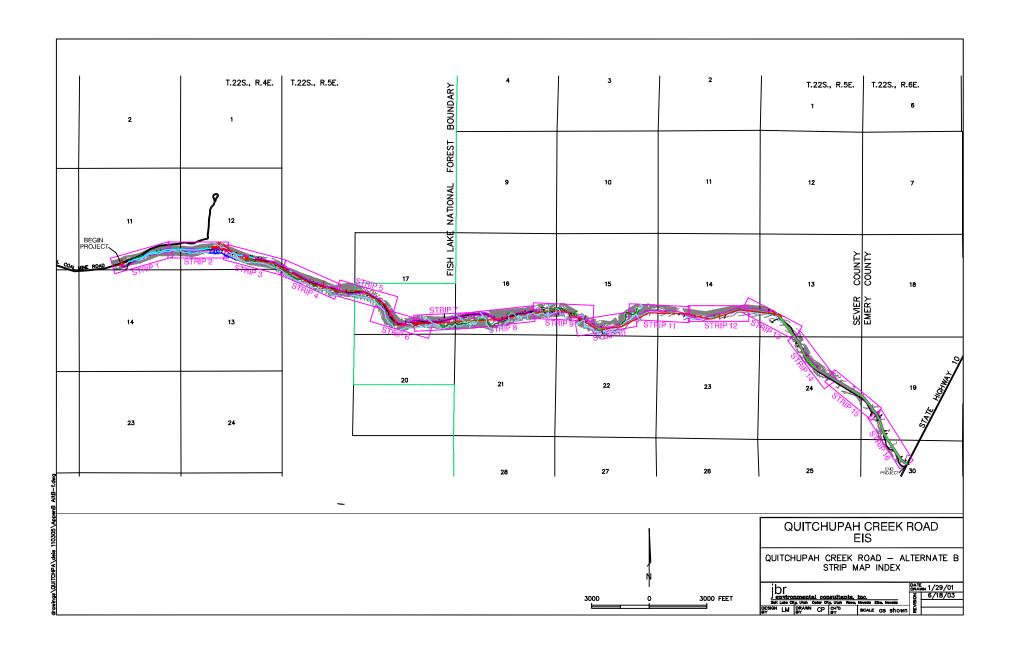
### Legal Descriptions of the Quitchupah Creek Road Project Area

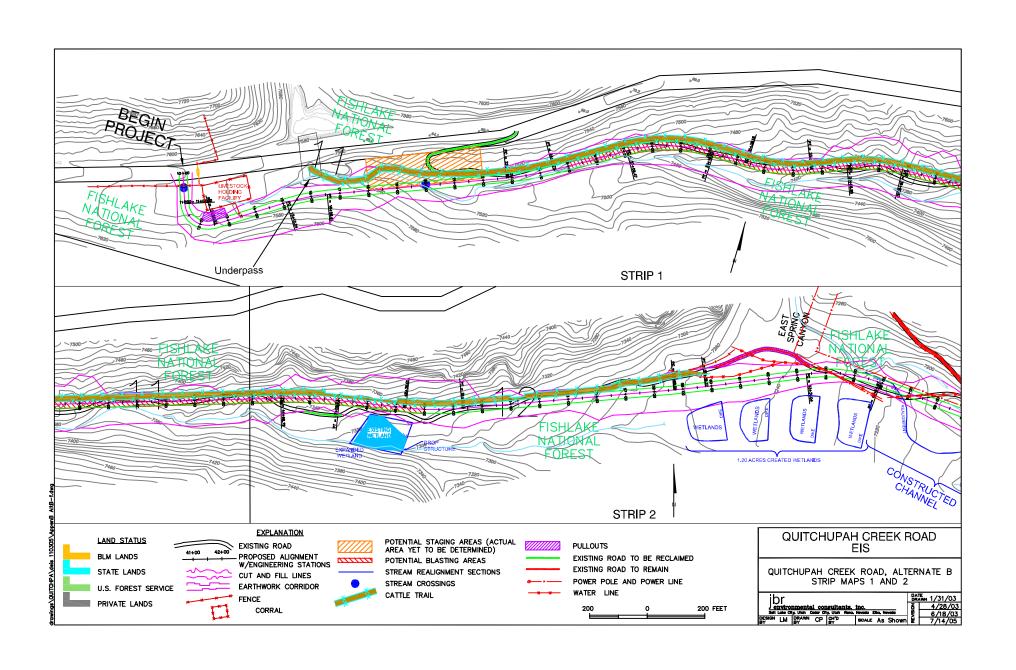
Quitchupah Creek Road Alignment - Alternative B:			
Junction Acord Lakes Road:	SW1/4 of Section 11, T.22 South, R.4 East, SLBM		
through:	Section 12, T.22 South, R.4 East, SLBM		
, and the second	Sections 18, 17, 16, 15, 14, 13, 24, T.22 South, R.5 East, SLBM		
	Section 19, T.22 South, R.6 East, SLBM		
Junction SR 10:	NW1/4 of Section 30, T.22 South, R.6 East, SLBM		
Alternate Junction and Alternate D	Design - Alternative C:		
Junction Quitchupah Creek Road:	SW1/4 of Section 13, T.22 South, R.5 East, SLBM		
through:	Section 18, T.22 South, R.6 East, SLBM		
Junction SR 10:	SW1/4 of Section 17, T.22 South, R.6 East, SLBM		
Water Hollow Alternate Alignment - Alternative D:			
Junction Quitchupah Creek Road:	SE1/4 of Section 18, T.22 South, R.5 East, SLBM		
_	Sections 18, 17, 20, 21, 28 and 33, T.22 South, R.5 East, SLBM		
through:	Sections 1, 2, 3, 4, T.23 South, R.5 East, SLBM		
	Section 35, T.22 South, R.5 East, SLBM		
function SR10: NW1/4 of Section 1, T.23 South, R.5 East, SLBM			

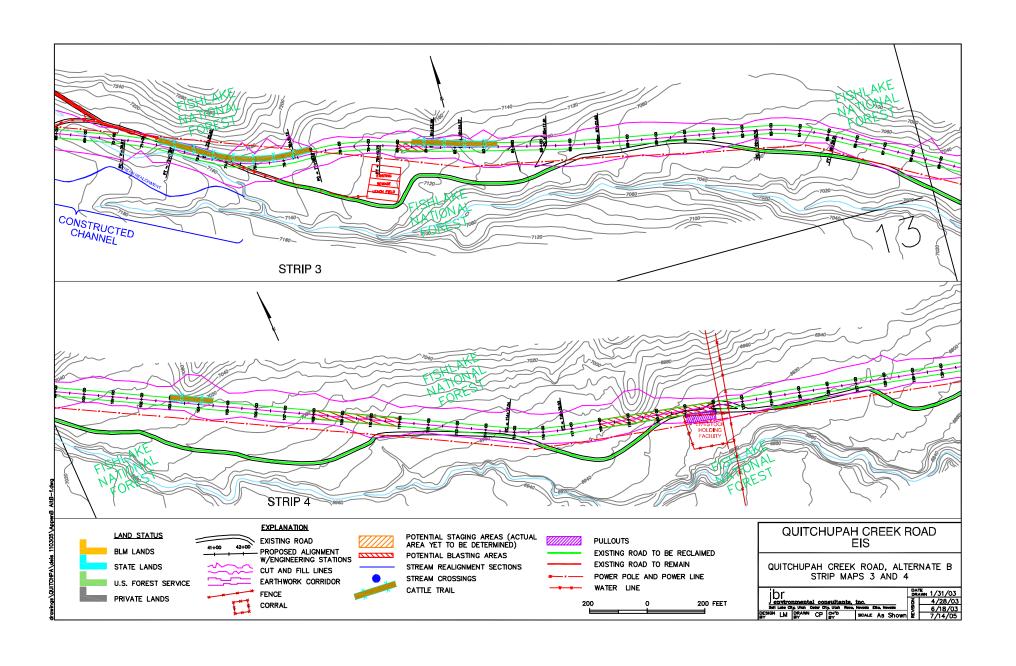
#### **APPENDIX B**

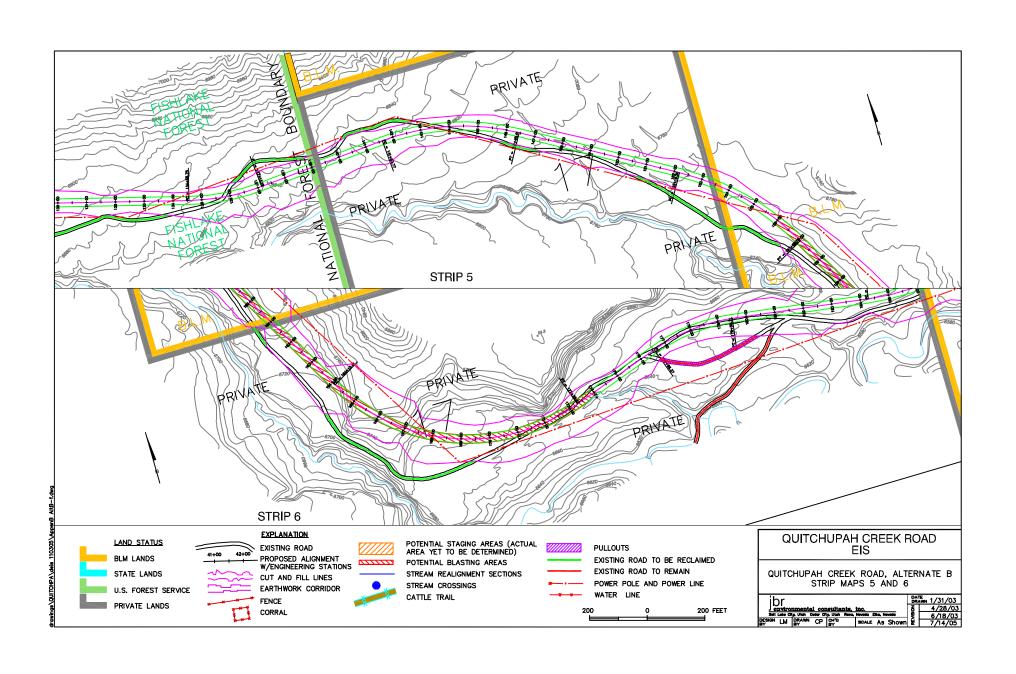
## ENGINEERING DESIGN AND BEST MANAGEMENT PRACTICES (BMPs)

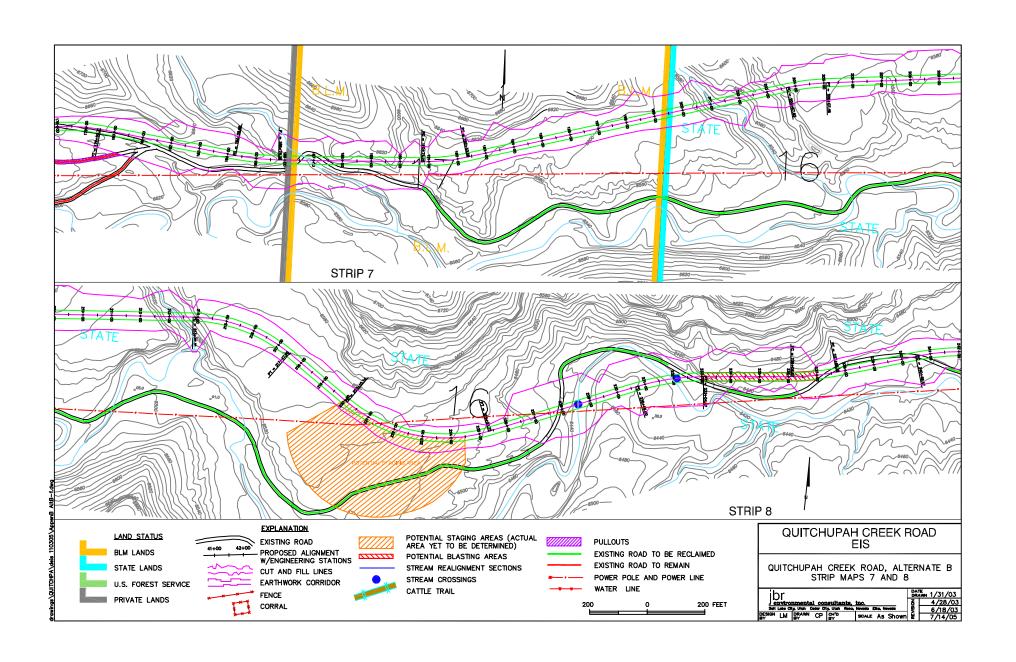


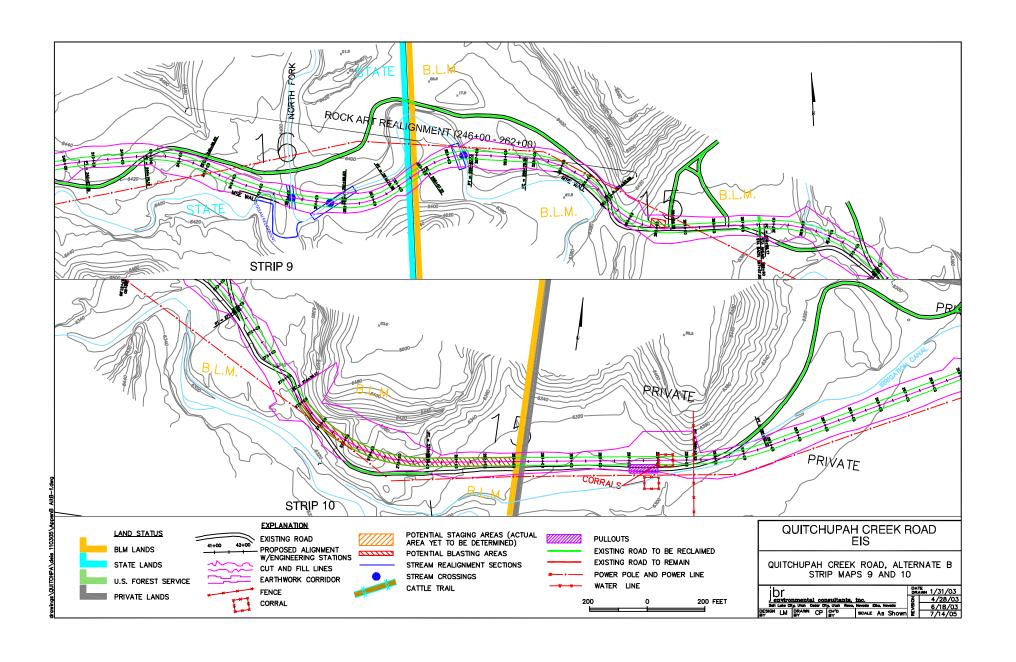


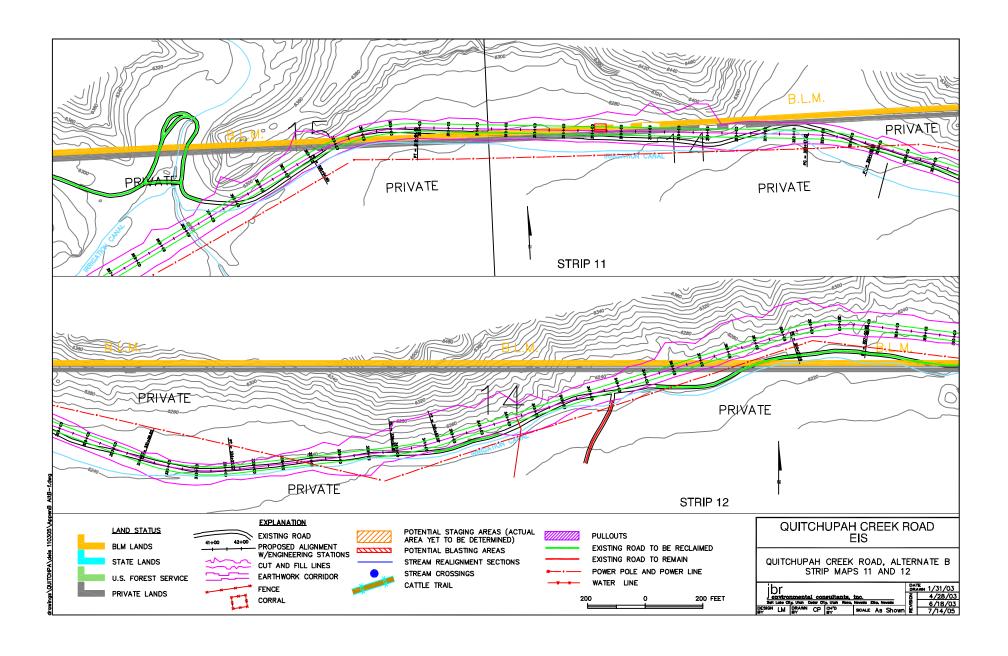


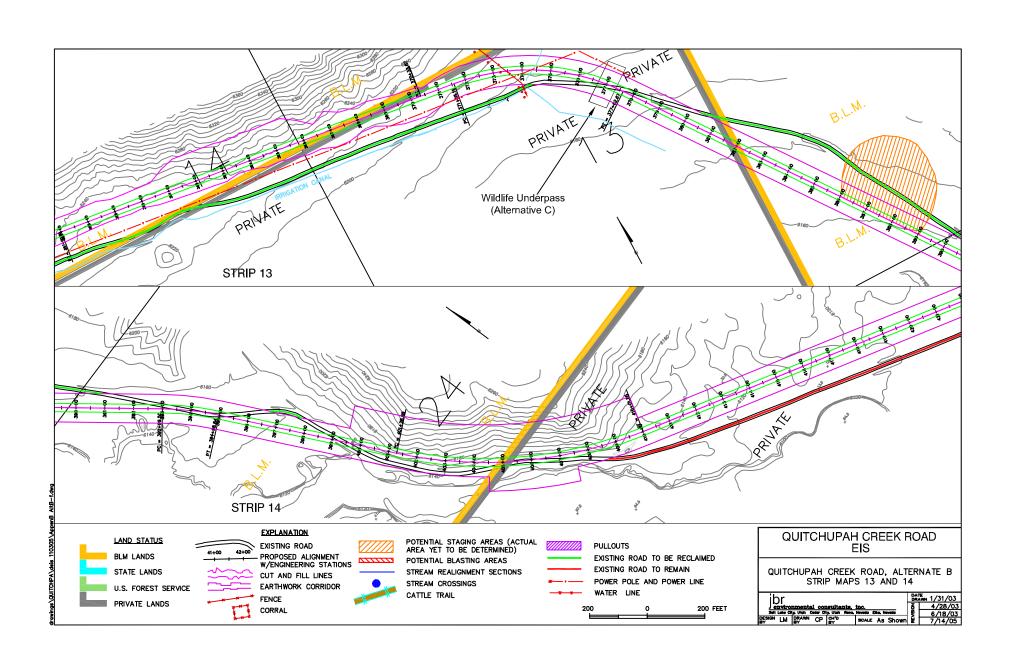


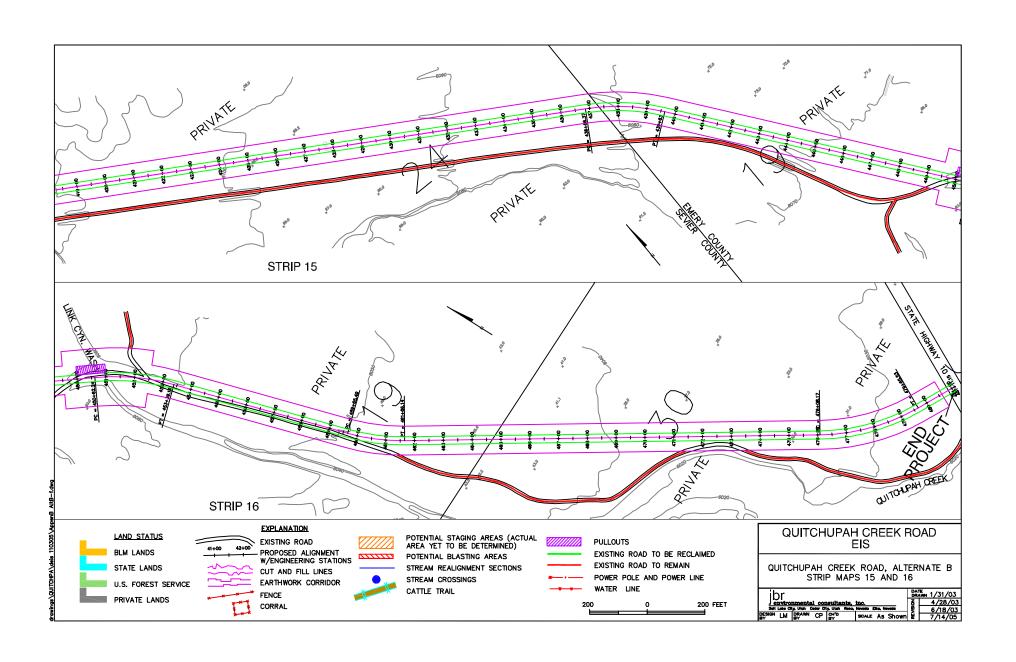


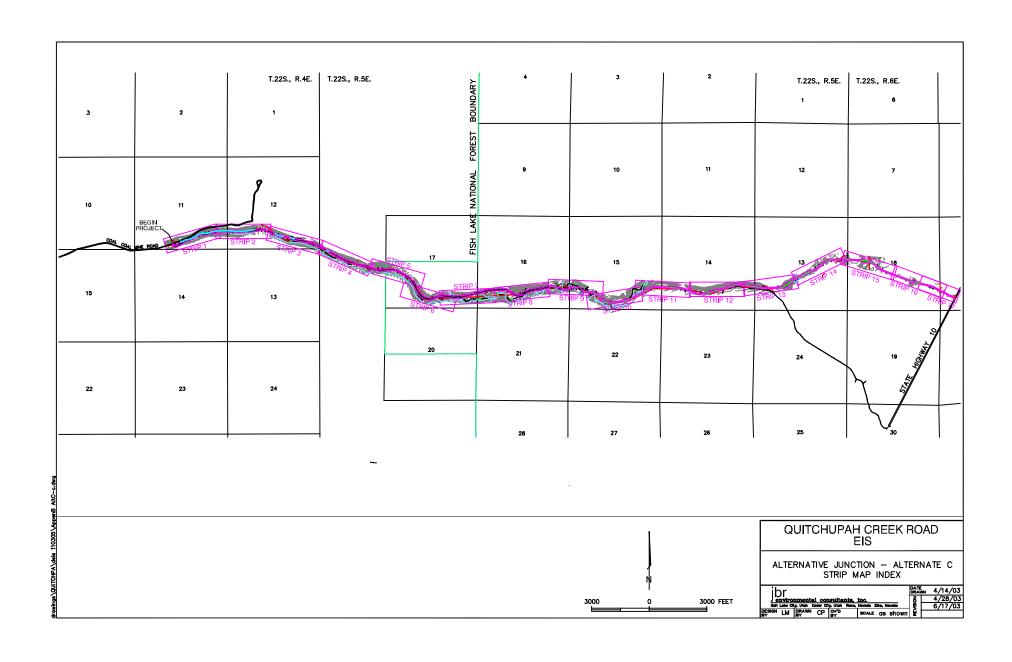


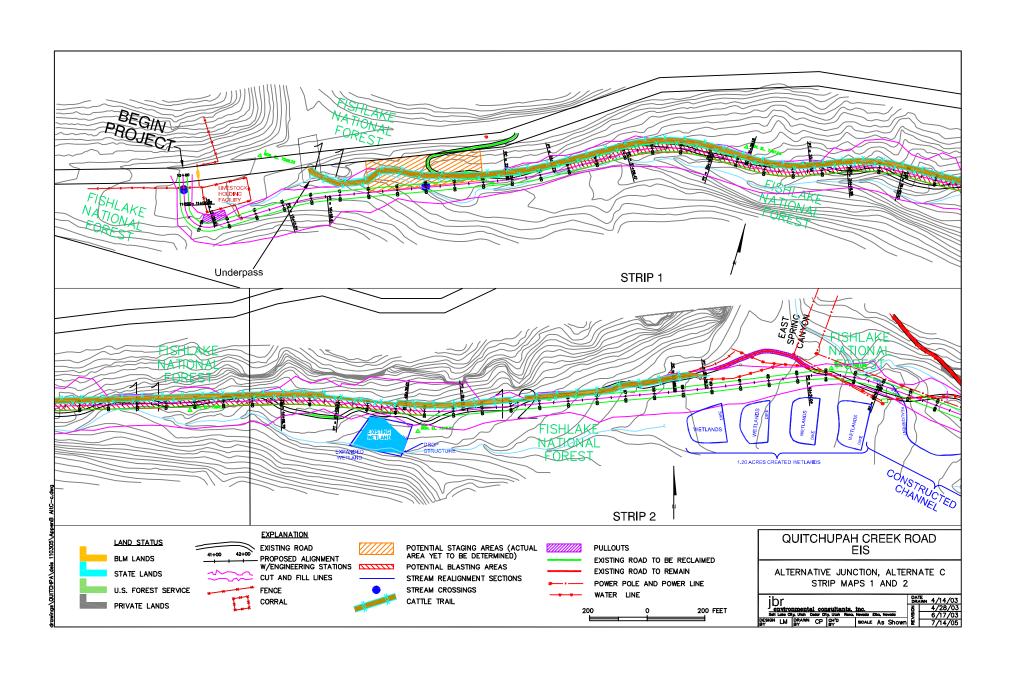


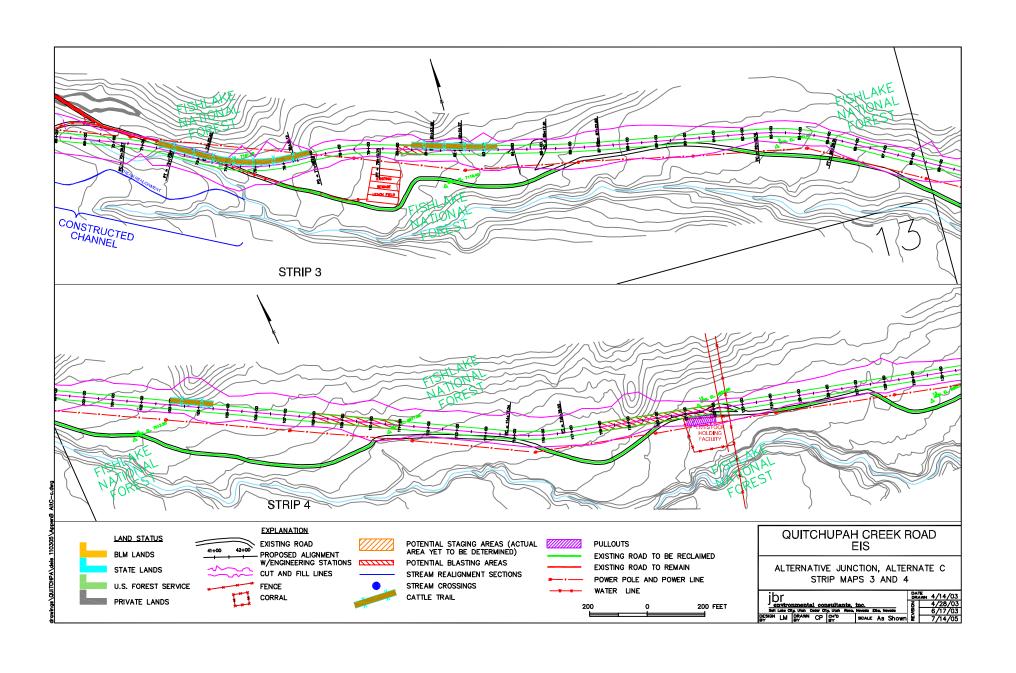


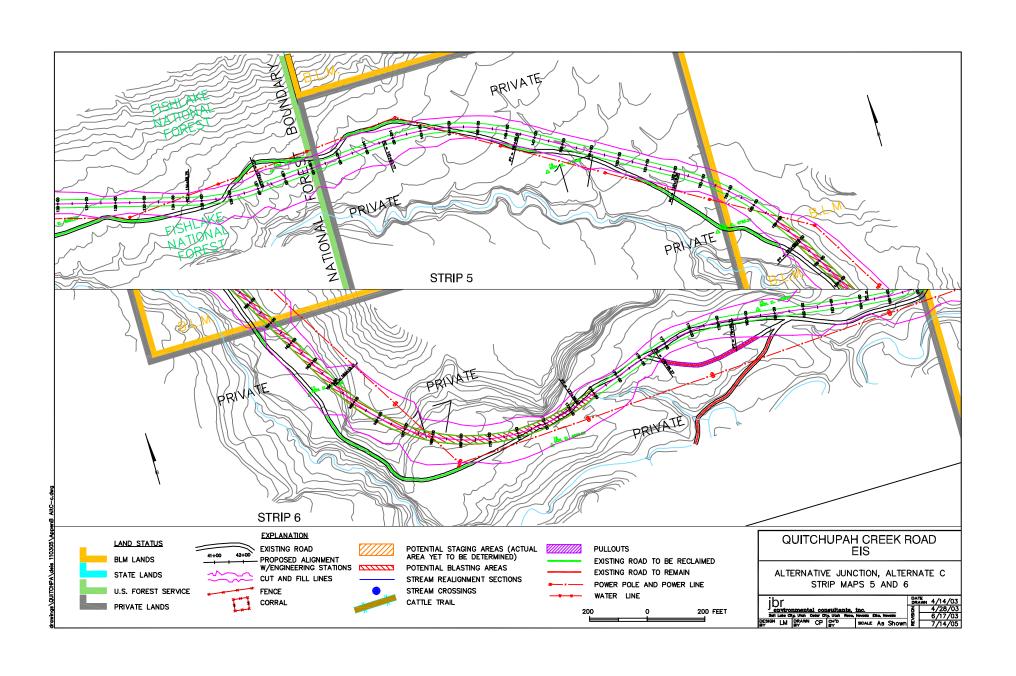


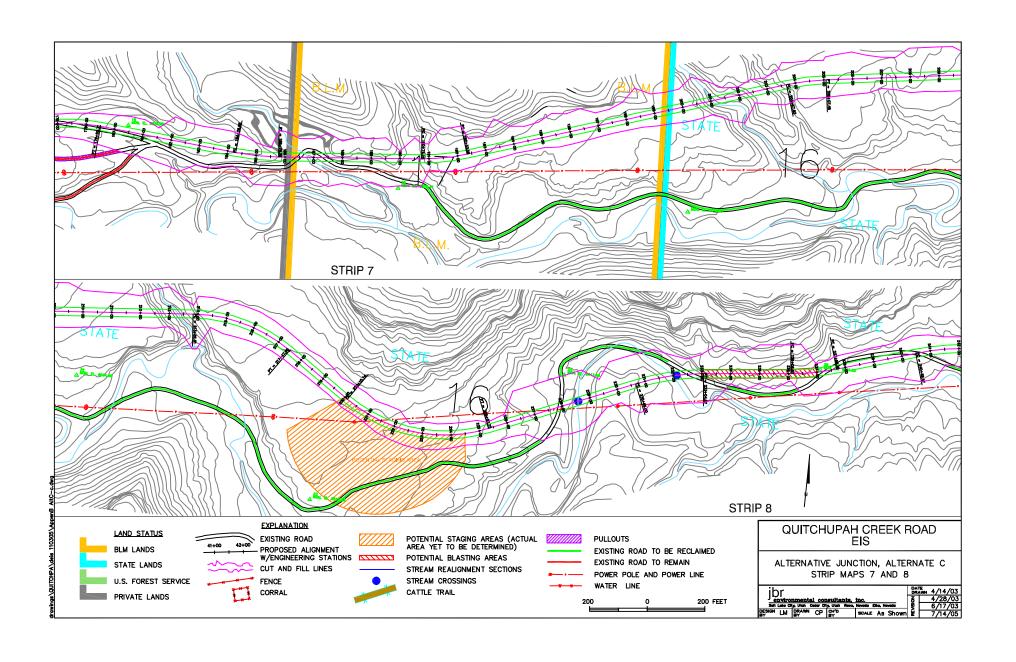


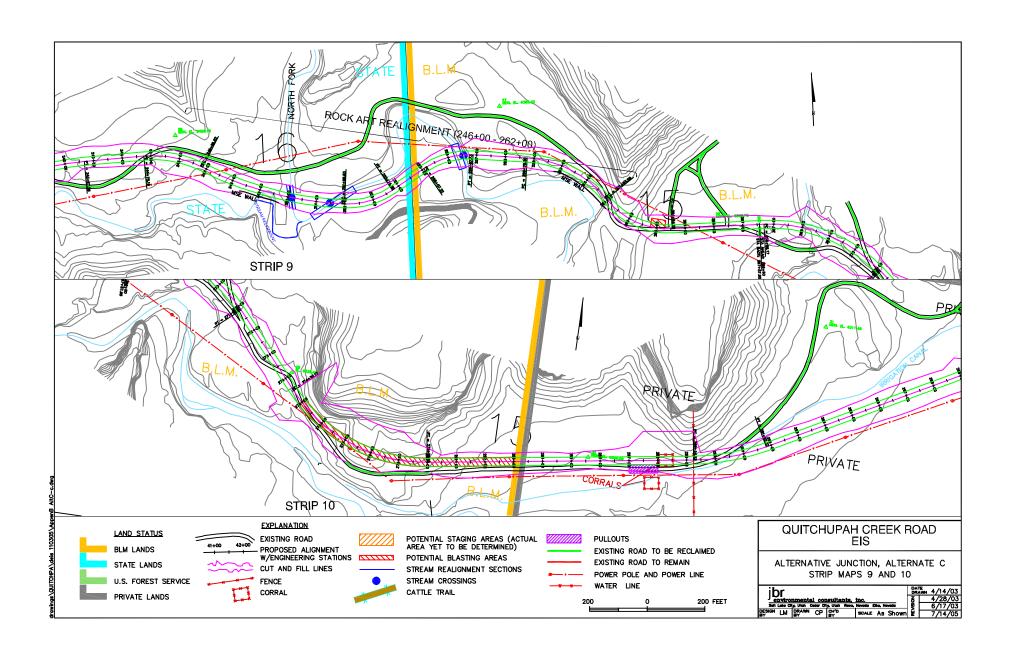


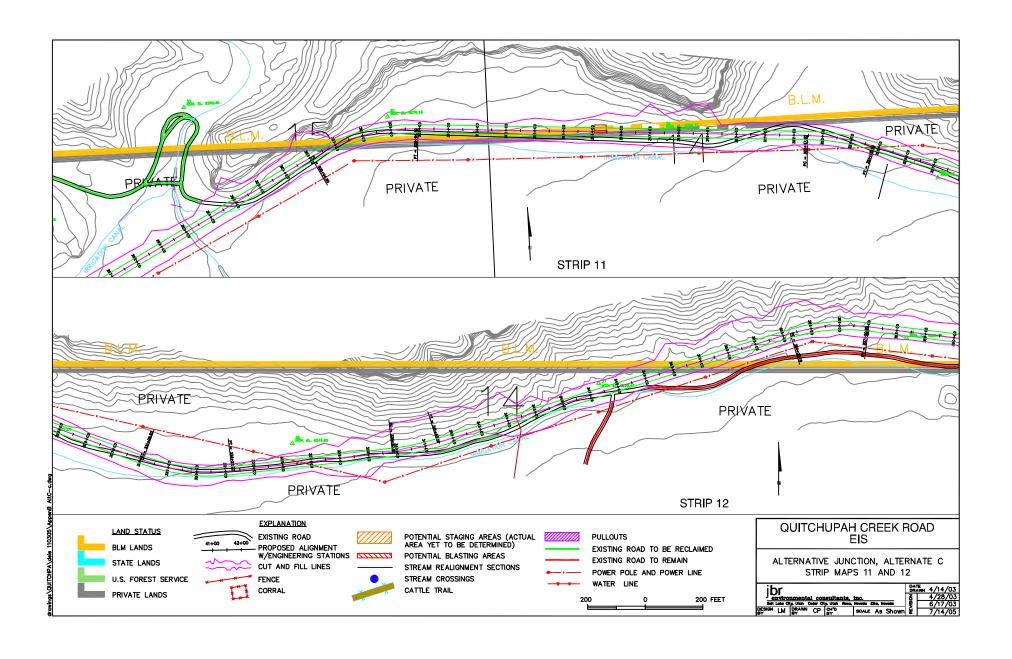


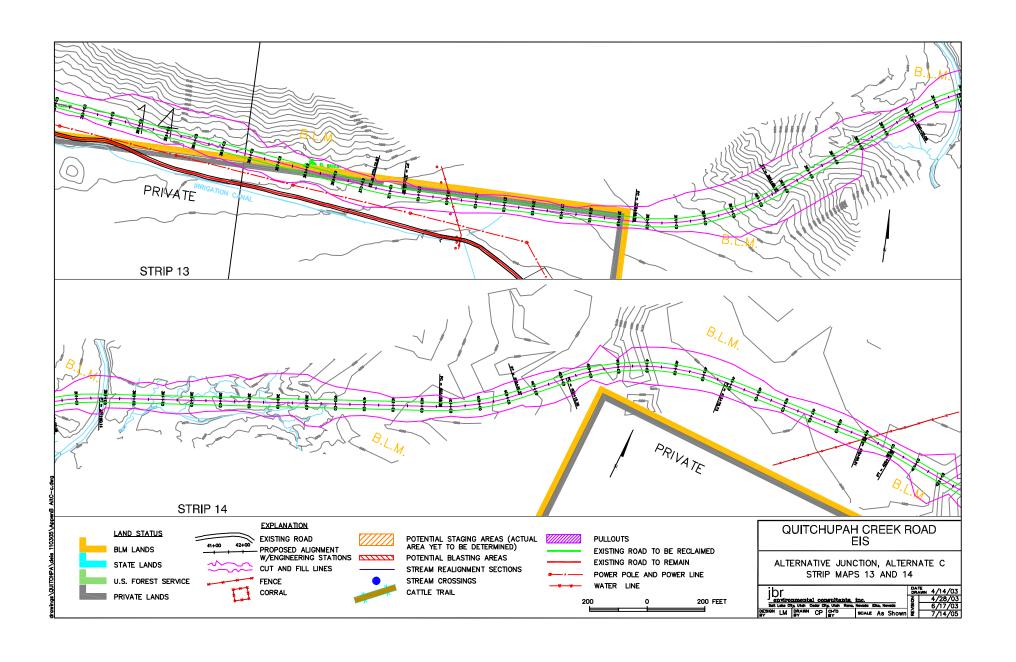


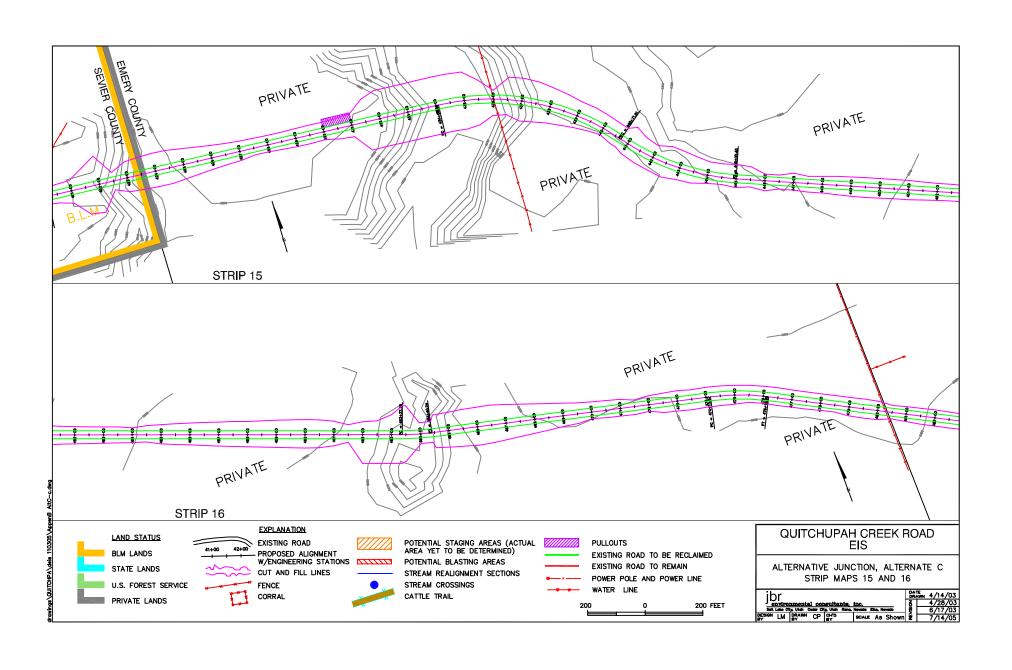


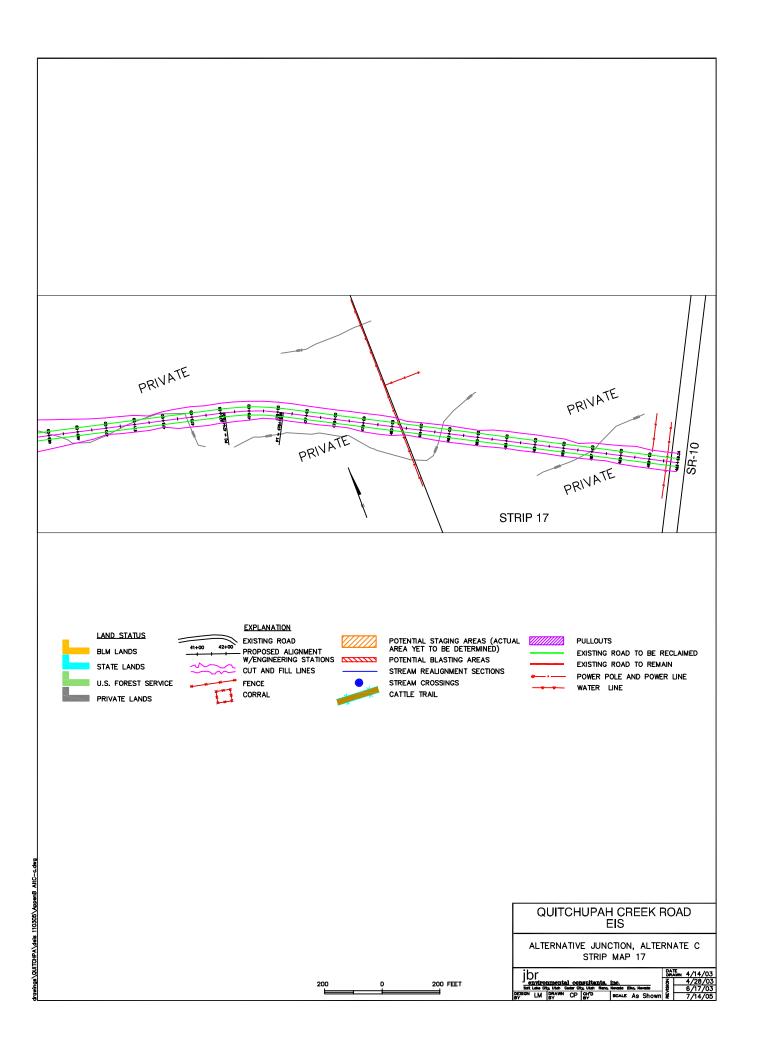


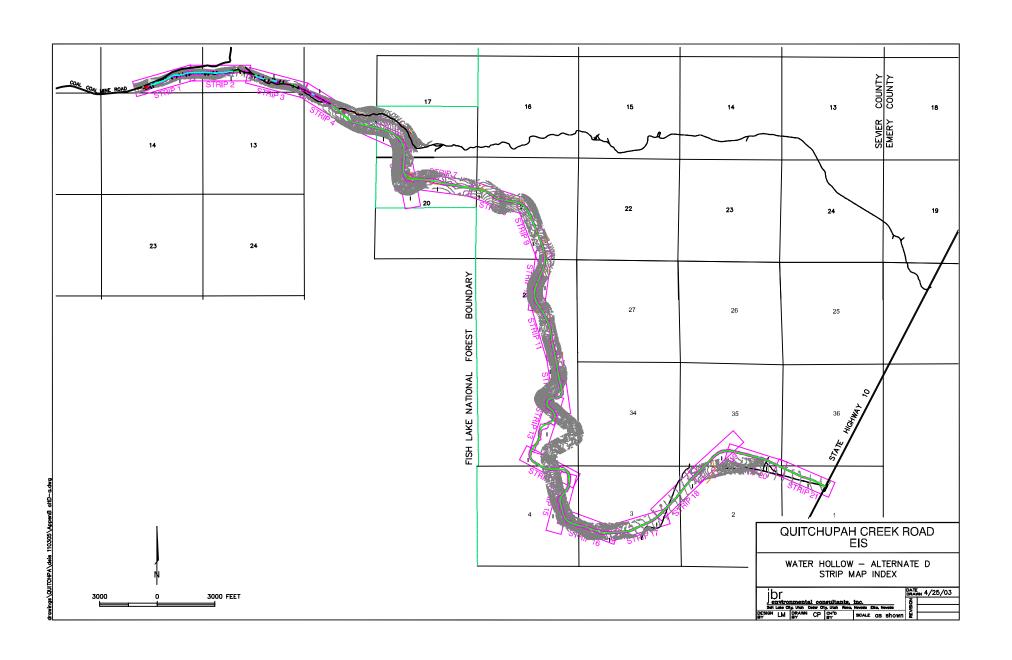


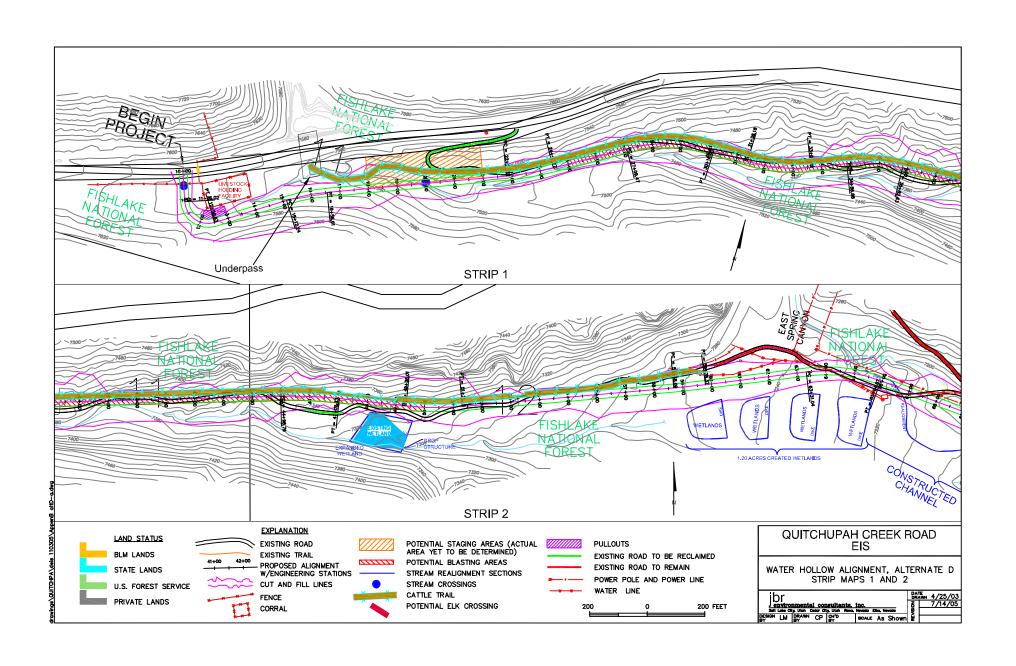


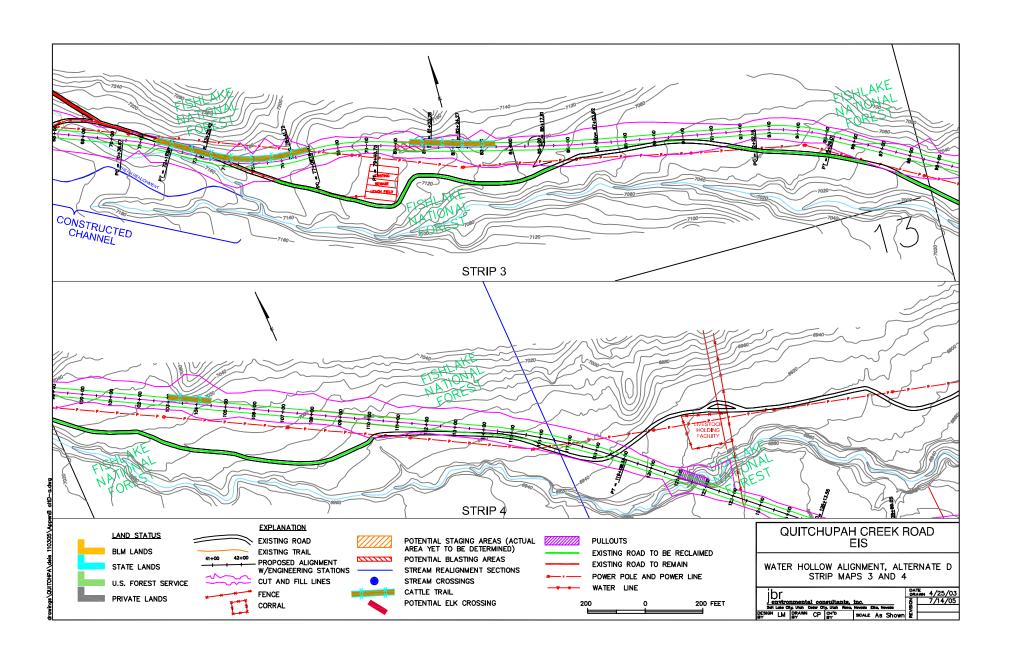


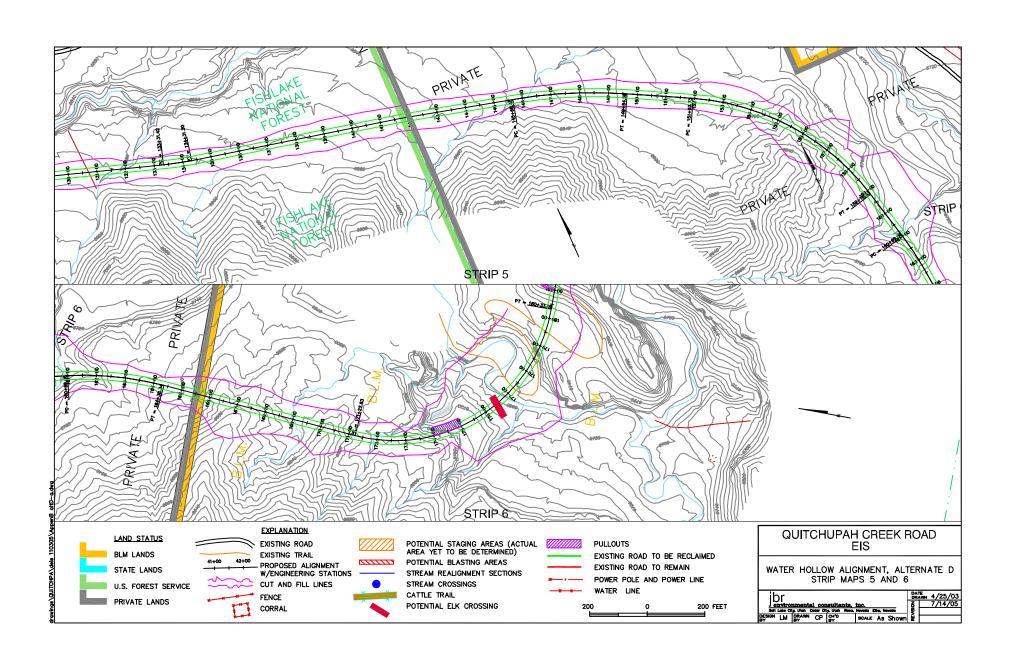


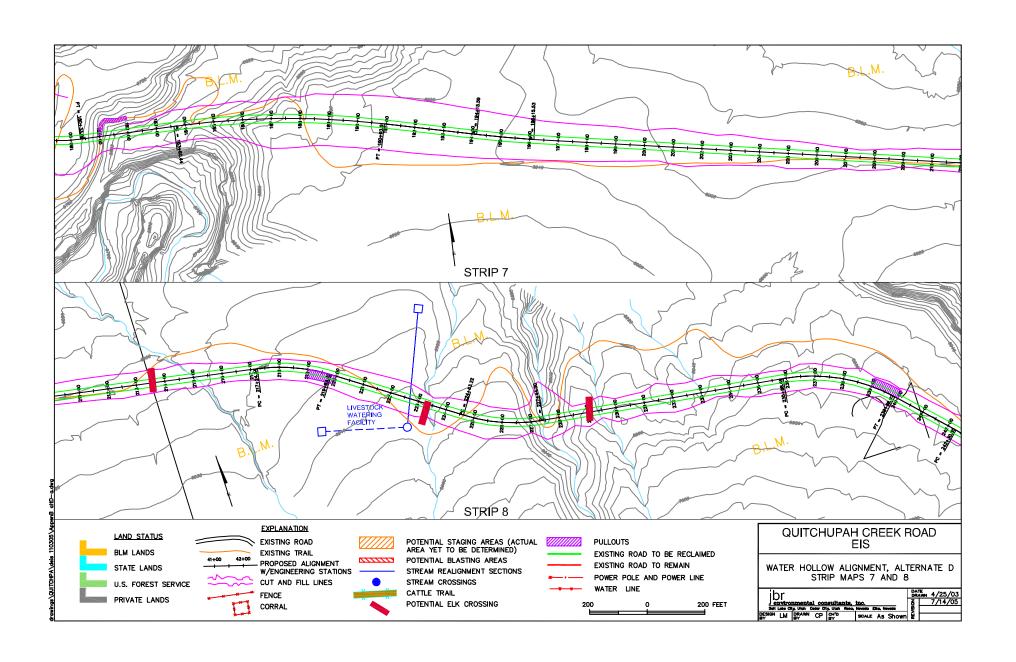


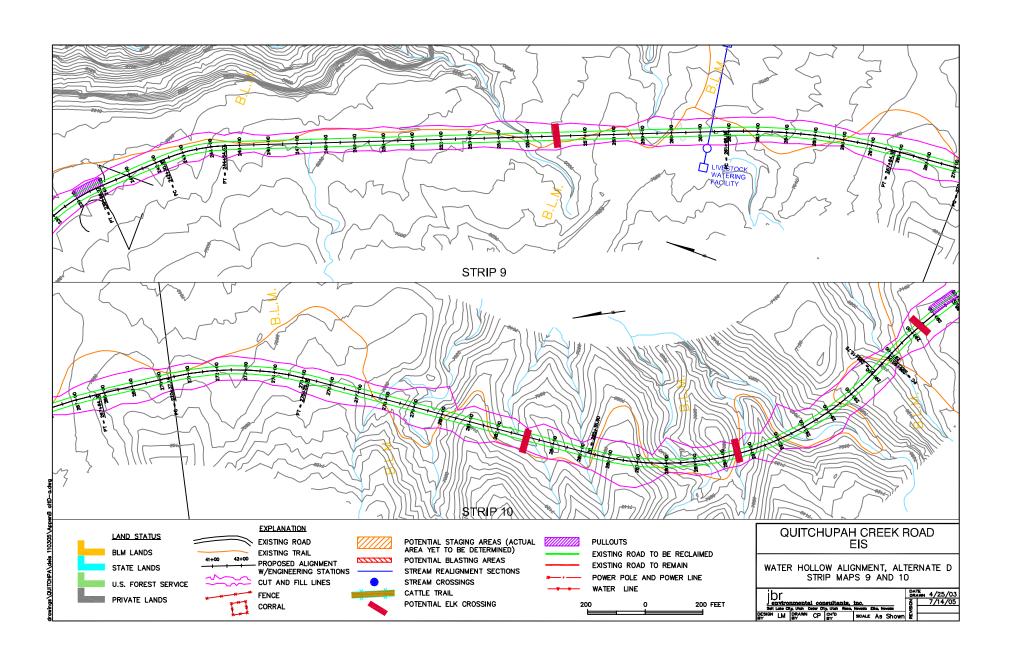


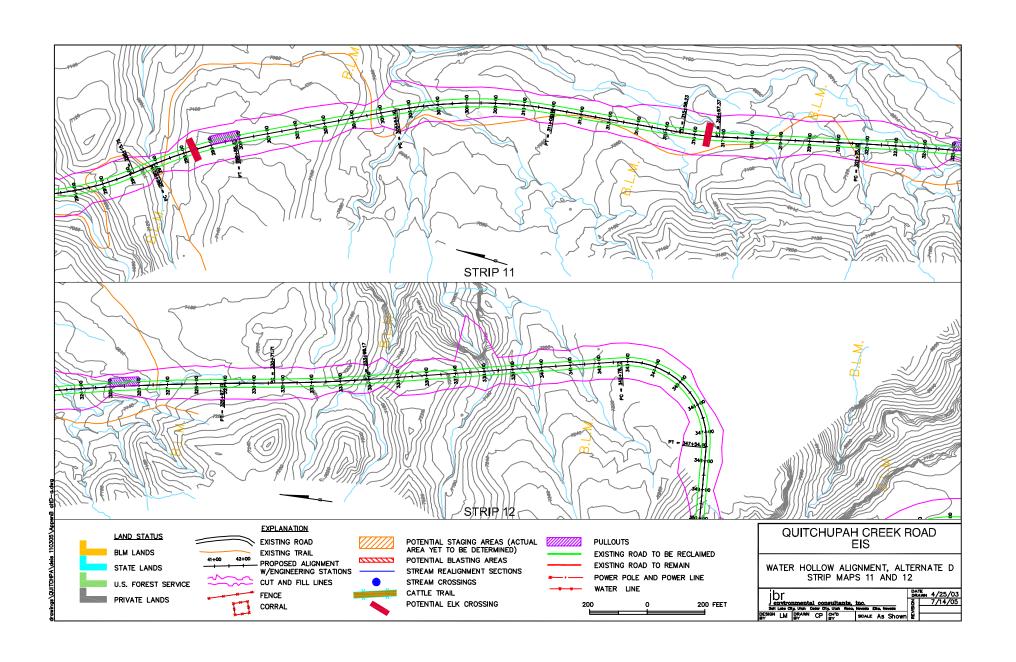


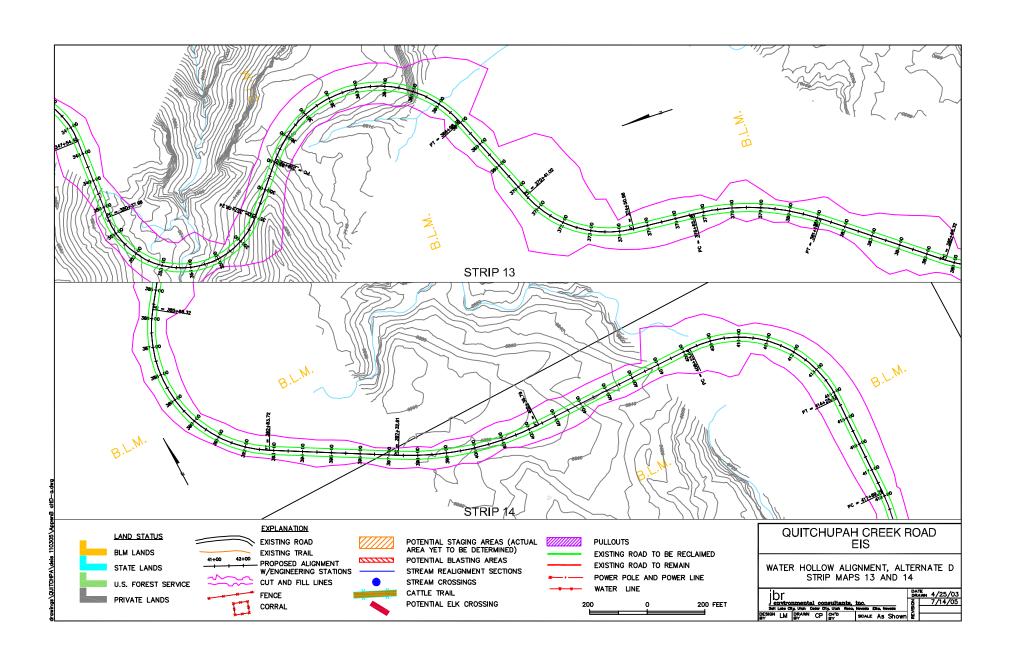


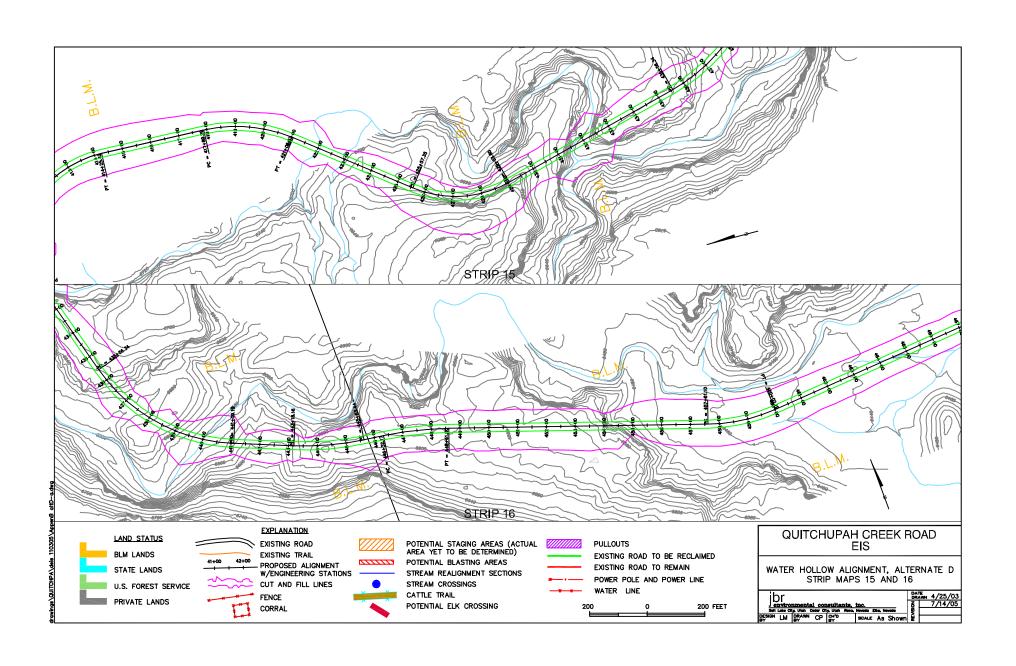


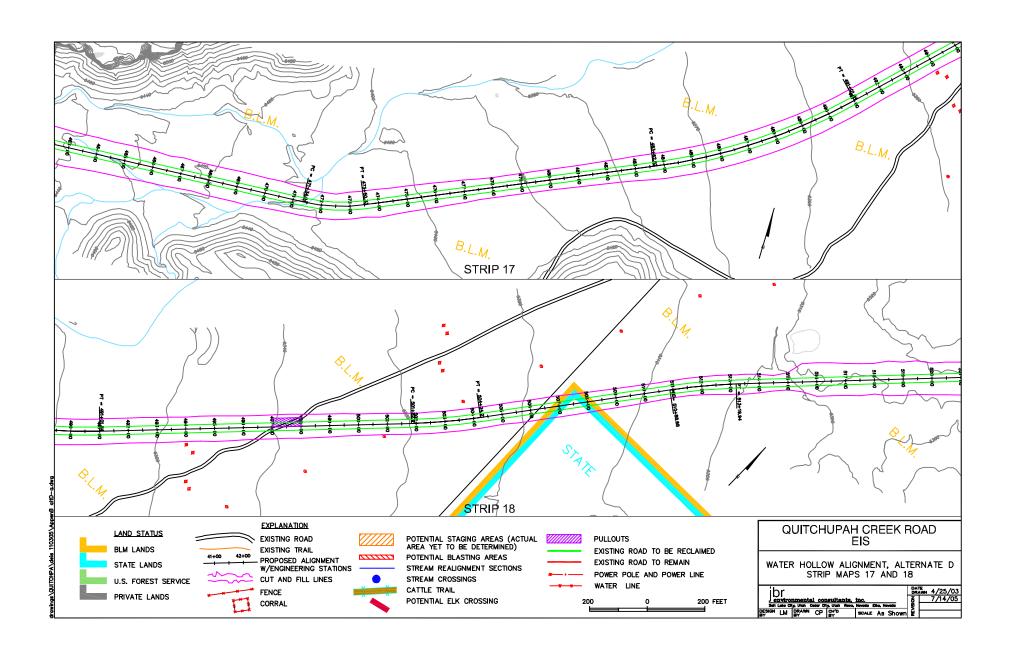


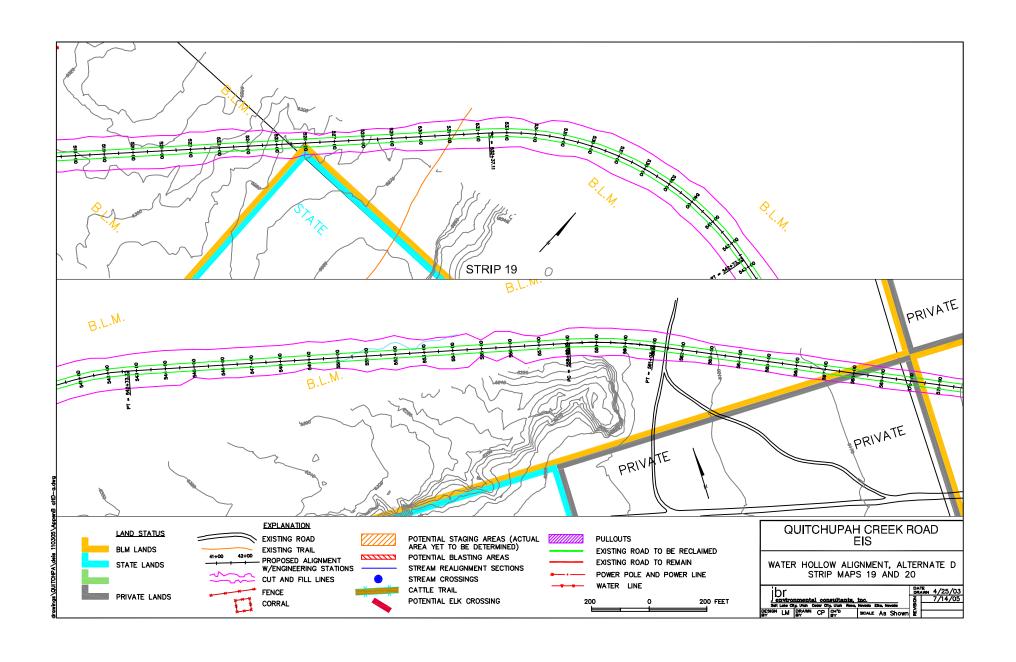


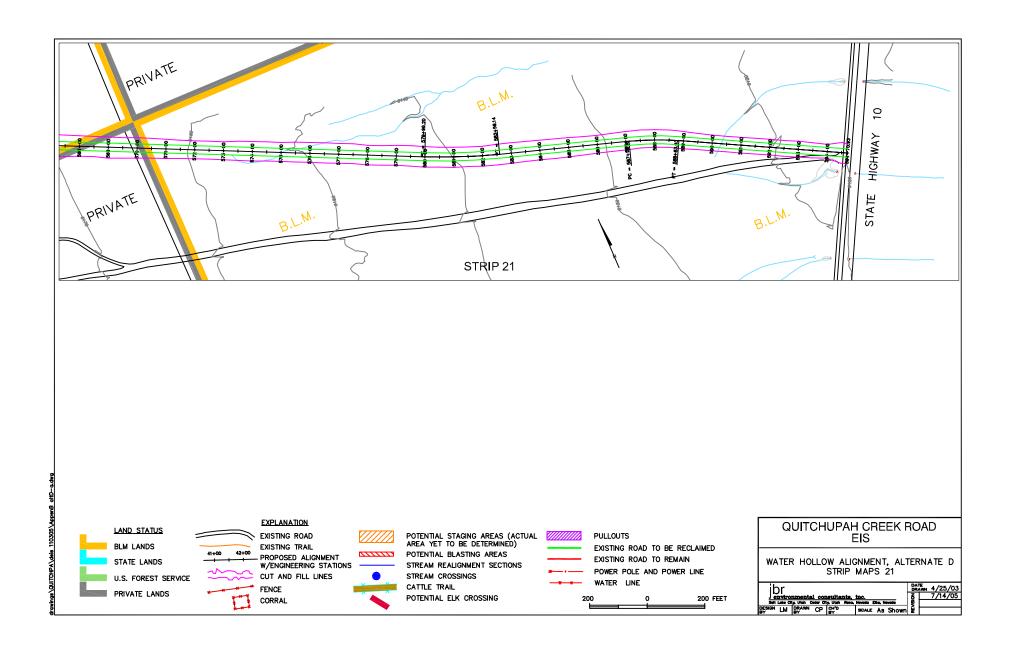


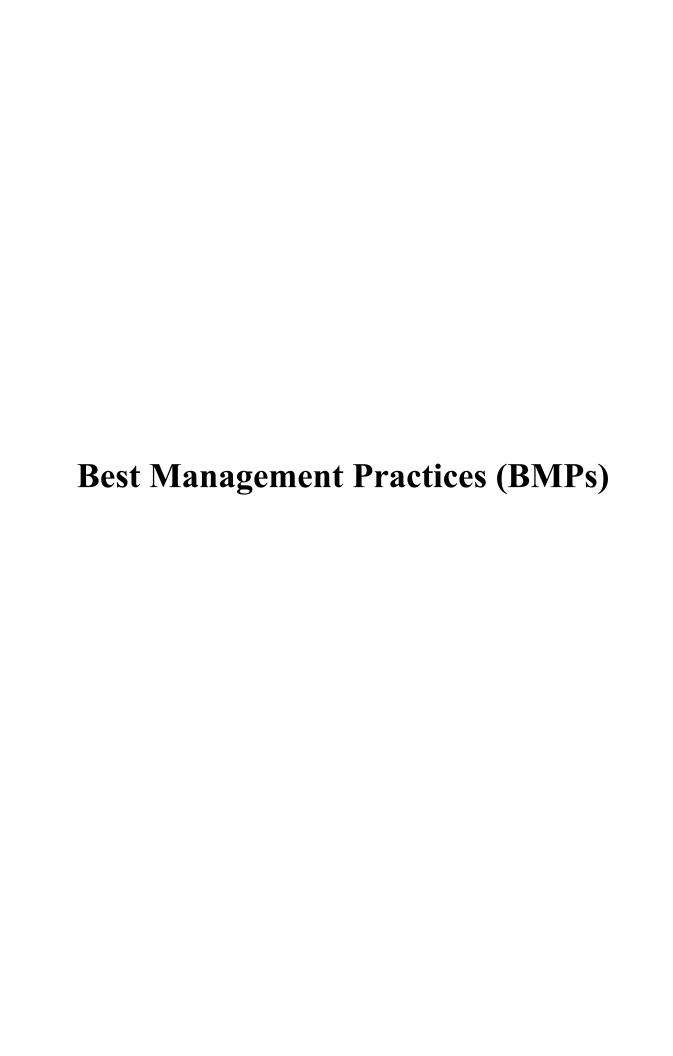












# Best Management Practices to Insure That Water Quality is Maintained

Along with standard engineering designs and special construction methods for the types of substrate encountered along the proposed alignment or alternatives, additional design, construction, and maintenance commitments would be made to protect stream, soil, and aquatic resources. These commitments take the form of environmental protection measures and/or Best Management Practices (BMPs) that would be implemented where applicable. They are based upon sound, tested techniques from established sources, including, but not limited to, Utah Department of Transportation Road Drainage Manual (UDOT, ); various U.S. Forest Service Road-Water Interaction publications (Furniss, 1997; Copstead, 1998; Flanagan, 1998; Moll, 1999); BLM (undated); Wasatch-Cache National Forest BMPs (USFS, 2001); State of Utah (1995); and local USFS personnel.

#### **DESIGN BMPS**

# **Drainage Crossings**

- Proper engineering design would insure that the existing channel configurations immediately
  up- and downstream of culverts are maintained to the maximum extent possible. This would
  include maintenance of cross sectional dimensions, profile, velocity, and flow patterns.
  Removal of existing riparian vegetation would be restricted to the minimum necessary for the
  maneuvering of equipment and the actual disturbed footprint.
- Channel crossing culverts would be designed to pass the peak flow, sediment, and debris associated with the 100-year event without headwater allowances greater than the culvert diameter. For example, where a crossing culvert is 36 inches, headwater depth would be less than or equal to 36 inches.
- Culvert crossings in streams where fisheries have been identified would be designed to pass appropriate species and life-stages during appropriate times of the years during both high and low flow conditions. The relevant design criteria and final designs would be determined through consultation with DWR and USFS fisheries biologists. Flow depth, flow velocity, and grade would be among the items the final design would take into consideration.
- In the interest of passing sediment and debris, and facilitating maintenance, minimum culvert diameter would be 24 inches. This would apply to channel crossings, ditch relief culverts, irrigation canal crossings, and all other culverts used in the project.
- Culvert inverts would be placed a couple of inches under the bed surface, along grade, whenever possible. This would allow a natural substrate to bed the culvert to provide aquatic benefits as well as reduce the potential for up- and downstream channel changes.
- Road fills at culvert inlets would be protected through the use of wing walls or similar structures such as vegetation, boulders, shotcrete, gunnite, or molded steel plate culvert ends, for flow depths up to those associated with the 100-year peak flow.

- Energy dissipating rock aprons would be used at culvert outlets to return flows to an acceptable velocity and depth as they exit the culvert. The distance downstream that the aprons would extend would be based upon site conditions as modeled by standard UDOT engineering design techniques to calculated outflow distances.
- Unless specific conditions are prohibitive, culverted crossings would be placed perpendicular to the roadway, in other words with the road approaching the natural channel alignment at a 90 degree angle. However, where the road alignment cannot accommodate this, the channel would not be realigned, and thus the angle would not be perpendicular.
- The width of the road fill at the crossing would be limited to the minimum necessary for the crossing. For example, pull out lanes, wide shoulders, etc. would not occur in these areas unless required for safety.
- All terms and requirements of the relevant Corps of Engineers Nationwide Permit for Road Crossings (NWP 14) would be followed at crossings for which it applies. These are not repeated here, but are incorporated by reference.
- Culverts would be installed and maintained to avoid inlet scouring and to prevent erosion of downstream banks. This includes such items as use of rock aprons, protected fills, installation along grade but slightly below bed elevation and other items discussed in this section.
- Crossings would be designed such that, if failure occurs due to blockage or capacity exceedance, flow would be returned to the natural channel and would not continue along the roadway toward another channel or an overland areas (least consequence flow path during overtopping). In many cases, this would be done simply by installing a slight depression in the crossing vicinity that does not interfere with traffic speeds.

# **Road Drainage Network**

- Ditch relief culverts would be installed at spacings adequate to manage runoff, generally no more than 500 feet apart. The spacing of ditch relief culverts would not exceed 250 feet in locations where the road is within 500 feet of perennial streams. As with all culverts used in the project, the minimum ditch relief culvert diameter would be 24 inches in order to prevent plugging by passing sediment and debris, and to facilitate maintenance.
- Rerouting or transferring of up-gradient runoff water via roadside ditches to adjacent basins, even on a small sub-basin scale, which would result in a cross-basin diversions that could alter natural flow and sediment regimes, would be avoided. This would be done by properly locating and spacing ditch relief culverts.
- Runoff from road surfaces would be discharged in a manner so as to avoid directly converging with stream channels wherever possible, minimizing or eliminating hydrologic connectivity between the road drainage network and the stream channels. This would be done by: (1) properly locating ditch lines and ditch relief culverts; (2) by grading slopes away from channel networks; and/or (3) by allowing sufficient distance for flows leaving a ditch relief culvert to re-infiltrate and deposit sediments. Where it is not possible to prevent a ditch or cross drain from draining more or less directly to a channel, the ditchline would be armored until reaching the next upstream ditch relief.

- Where possible, cross drains and ditch turn outs would be sites on gently sloping, stable terrain such as where rock or stable vegetation is found. Discharge areas would be located to release water on convex slopes where possible, so that water would be dispersed rather than channeled; concave slopes would be avoided wherever possible.
- As needed, ditch relief culvert outflow areas would be armored with loose riprap, grouted riprap, shotcrete, gunnite, turf reinforcement mate, gabions, or similar types of materials and configured to reduce velocity by providing dispersal and velocity reduction for at least 50 feet downstream. This armoring would occur wherever needed due to grade and/or substrate characteristics. Further, wherever ditch lines and ditch relief culverts are located within 500 feet of perennial stream, the ditchline and the outlow area would be similarly armored.

# **Channel Realignment or Roadfill/channel interactions**

- Any in-channel work, whether related to stream bank realignment, crossing, or other purpose would result in reestablishment of original channel gradient, bank width, bank slope, and bankfull depth. As necessary, this would involve accurate surveying of existing, predisturbance conditions and follow up surveys after the work has occurred.
- Where channel realignment cannot be avoided, such as at East Spring Canyon, the rock art site, and the upper narrow Convulsion Canyon reach, the natural channel's pattern and geometry would be mimicked where possible, including radius of curvature of meanders, bed profile, bank slope, substrate diameter, habitat feature. A hydrologist would assist in the design and implementation of channel realignment and design projects.
- Realigned or reconstructed streams would be designed to carry bank full flows in-channel, with flood flows dispersed on floodplains or in a widening channel appropriate for the given valley type present.
- At the upstream and downstream ends of realigned reaches, appropriate transitions to the undisturbed channel reaches would be designed.
- Where appropriate, low-stage grade control structures would be incorporated into the designs to prevent vertical migration of entrenched channels. Typically, these structures would be keyed into the bed and banks, with the top elevations at the same elevation as the channel bottom or no higher than 1.5 feet above the bed. Specific designs for each structure would insure that erosion around the ends of the structures would not occur during higher flows, and that gradient stability would be maintained by properly spacing the structures.
- Where appropriate, rather than using riprap, new channel banks would be treated with burlap bag soil pillows, willow soil-root plugs, cuttings or similar bioengineering treatments from onsite to encourage and enhance both herbaceous and woody vegetation growth. This would occur where banks have non-rocky substrate that would allow such treatments to be effective and develop natural functioning deformable banks.
- As required, conditions of the State General Permit 40 for Stream Alterations would be followed. Conditions are not listed in entirety here, but are incorporated by reference.

## Fill Slopes and Cut Slopes

- Where cut or fill slopes are steep (2.5:1 or steeper) and sufficient soil substrate (i.e. not too rocky, bouldery, or in bedrock) allows for eventual revegetation, synthetic turf reinforcement mats (TRMs), rolled coir logs, or similar products would be used to provide erosion protection and hold soil/seed in place. Any such products would be installed following the specific manufacturer's specifications.
- Where cut or fill slopes are 2.5:1 or steeper and are longer than 100 feet, benched slopes would be used when feasible from an engineering standpoint in order to reduce runoff velocities, prevent erosion, maximize infiltration, and facilitate revegetation.
- Where long, steep fill slopes (greater than 200 feet long and steeper than 2:1) would be needed within 50 feet of perennial streams, vertical retaining walls would used to eliminate the chronic erosion/sedimentation potential for these areas.
- Where construction activities result in exposure of large boulders (2 feet or more in diameter), these would be placed or left on cut or fill slopes in a secure manner to mimic natural microtopography, thus somewhat controlling runoff/erosion and providing niches for vegetative growth.
- Revegetated road fills and slopes would be permanently protected from livestock through fencing with cow-proof barbed wire, or management controls such as herding restrictions.
- Where fill slopes toe out within or close to the floodplain, the toes would be adequately protected with rock rip-rap sized to withstand expected velocities without movement, and will be sub-excavated to prevent undercutting.

## **CONSTRUCTION BMPS**

- Construction would be timed to occur so as to minimize the time of exposure of bare soils before reseeding or other reclamations techniques are implemented. Specific revegetation treatments are discussed in Chapter 2.
- Construction near or in drainages would be restricted to normal low flow seasons (late June through October) and would be temporarily halted during flash flood or other runoff events, which are most common in late summer. During construction the channel would be lined or water would be pumped to prevent increases in turbidity from channel excavations.
- Length of construction time in/near the stream channel would be minimized by segregating that work task to occur as rapidly as possible in a sequential manner; area of disturbance would also be minimized, by restricting equipment to a narrow construction corridor.
- As construction within 50 feet of a stream channel is completed, loose material would be removed from outside the flow path of flood events.
- Where a fill slopes toes out within 50 feet of Quitchupah Creek, a wetland area, or other perennial water, silt fences or similar sediment collection treatments, such as sediment traps, straw bales, coir wattles would be used during construction.

- Riparian vegetation would remain undisturbed wherever possible, and would be limited to that
  necessary in the actual footprint as well as the minimum necessary for equipment work in the
  established construction corridor.
- Silt fences or similar sediment collection treatments such as hay bales, coir wattles, small retention basins, pre-made vendor marketed sediment collection traps would be used when the construction activity occurs within 300 feet of Quitchupah Creek, a wetland area, or other perennial water.
- A Storm Water Pollution Prevention Plan would be prepared and followed, according to all the terms and requirements of the Utah Pollutant Discharge Elimination System (UPDES) Permit for Storm Water Discharges from Construction Activities. These are not reproduced here, but are incorporated by reference.
- Contractors responsible for constructing the road would be responsible for maintaining spill kits on site and would train their personnel on how to respond to an emergency spill.
- Equipment and construction materials would not be stored, stockpiled, or maintained within 200 feet of perennials streams.

## **RECLAMATION BMPS**

# **Road Corridor and Cut/Fill Slopes**

- All areas of the constructions corridor, and surfaces not associated with drainage, safety or travelways would be reclaimed as described in Chapter 2. Road cuts and fill would be included within the reclaimed corridor.
- Once reclamation treatments have occurred, they would be monitored and maintained as discussed in the monitoring/maintenance plan until they are deemed successful. A higher level of vegetative success would be applied for road cuts and fills within 500 feet of channels.
- Larger stumps and slash that are by necessity removed during road clearing would be used as temporary sediment filter windrow barriers at the base of road fill slopes or below ditch relief culverts or other locations to provide sediment trapping and runoff velocity control.

## **Existing Jeep Trail**

• Under Alternatives B and C, the existing jeep trail, where it remains exposed but is no longer needed due to the new road, would be fully reclaimed. This would include substrate preparation and surface roughening including deep ripping, furrowing and introduction of organic matter; reseeding with an appropriate seed mix as specified in Chapter 2 and as approved by the appropriated land managing entity; fertilizing or adding inocculants to encourage growth; mulching with rock or other suitable material such as straw or matting; traffic barriers such as boulders, fencing, or steep berms; and follow up monitoring/maintenance, as specified in the monitoring and maintenance plans. The reclaimed road area would be protected from livestock grazing until the plants are sufficiently established such that soil protection would be assured even if grazed.

- Where the existing jeep trail includes cut and fill slopes, obliteration would be accomplished by decompacting the inner ½ of the prism to a minimum of 14 inches. The fill material would then be replaced against the cutslope to restore the natural outslope as much as possible.
- Where the existing jeep trail crosses watercourses, channel width, gradient, and side slope
  would be reinstated to match conditions above and below the crossing. If follow-up monitoring
  notes that an equilibrium gradient cannot be maintained, low stage grade control would be
  installed.

# Staging, Borrow, and Miscellaneous Areas

- All staging and on-site borrow areas would be graded gently to minimize offsite erosion, and where needed, sediment control via silt fences, berms, straw wattles, sediment basins, etc. would be placed. When completed, these areas would also be reclaimed to the same standards as other reclamation areas described in Chapter 2, including follow up maintenance and monitoring. These sites would be protected from livestock grazing until the plants are sufficiently established such that soil protection would be assured even if grazed.
- The Broad Hollow holding facility would be graveled and graded so as to minimize erosion.

#### **OPERATIONAL BMPS**

# **Winter Deicing BMPs**

- Sand with added salt or salt substitutes would be used when necessary to provide safe winter driving conditions, using criteria that are acceptable and standard for the State of Utah. The source and quality of the sand would be chosen such as to minimize contributions of salt into the watershed.
- Salt storage facilities would be sited on flat areas, at least 500 feet away from streams and other water sources, would be roofed, and drainage would be directed away from the area via grading, ditching, berming or other means.
- Springs, wetlands and other sensitive areas would be marked with visible fluorescent flagging and extra care taken during application to insure that salt is not added to those areas either directly or via runoff.
- Operators would be trained when hired and training would be repeated annually in proper application rates, techniques, etc. to insure both safe conditions and minimal environmental harm.

## **Miscellaneous**

- Truck drivers would be trained to properly respond to and report spills of fuel, coal, or other materials. Trucks would be equipped to enable them to properly do so.
- Air or water baths would be used after loading coal trucks to prevent coal from falling off the trucks during transport.

- Large animal carcasses would be disposed of where they cannot be delivered or dragged to dry or wet channels.
- Monitoring of all site reclamation would continue for as long as it takes to assure that the
  reclamation measures have been effective. If reclamation is not effective or if there are
  unintended and unforeseen erosional or water quality impacts, additional treatments and/or
  mitigation measures would be applied to alleviate the impact. See the monitoring plan.
- Inspection, maintenance and/or repairs to drainage crossings, slopes, road drainage network, etc. would occur in a timely manner to prevent continuing or extensive erosion/sedimentation problems. This BMP is described more fully in the Monitoring Plan document, which is incorporated by reference.

# **References:**

Bureau of Land Management. Undated. Internal Document, Price Field Office Hydrologic Modification Standards for Roads.

Copstead, Ronald L., PE, et al. September 1998. Water/Road Interaction Technology Series: Introduction to Surface Cross Drains.

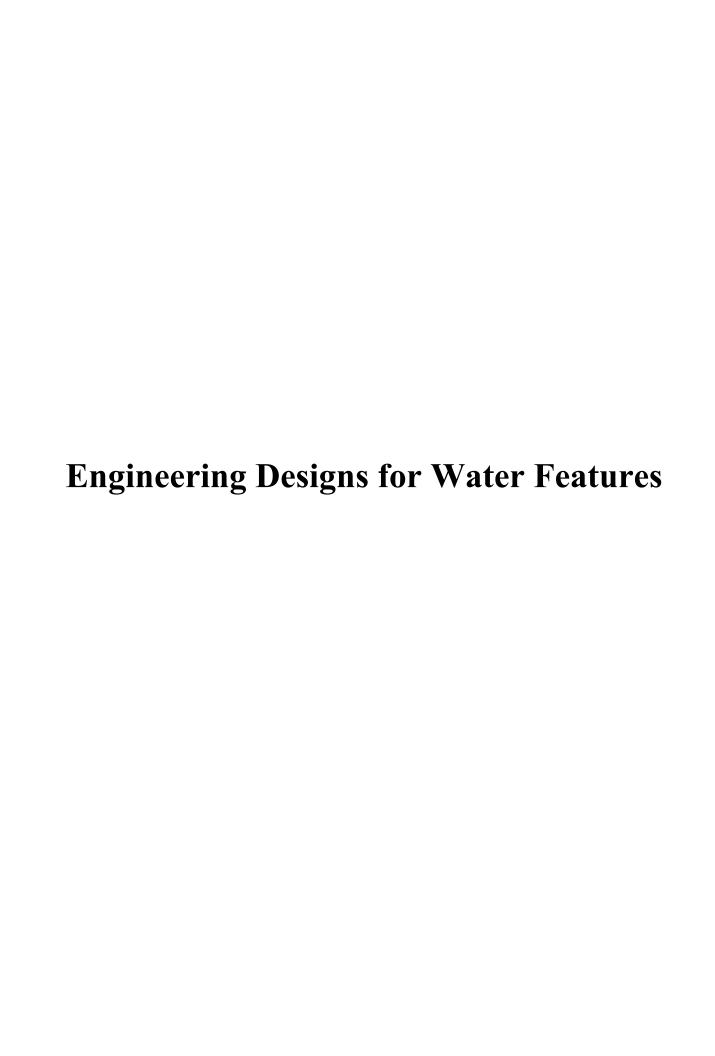
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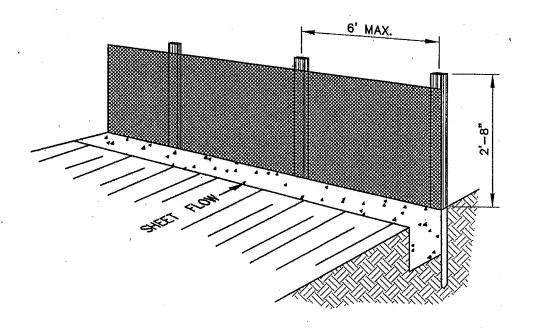
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Moll, Jeffry E., P.E. August 1999. Water/Road Interaction Technology Series: Minimizing Low Volume Road Water Displacement.

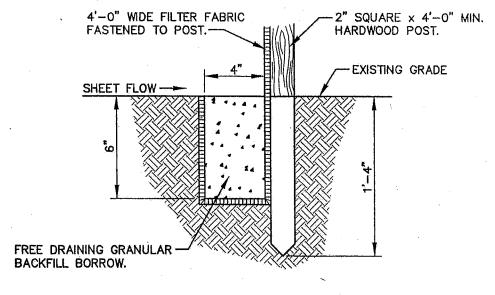
State of Utah, March 1995. Nonpoint Source Management Plan for Hydrologic Modifications.

USFS, 2001. Ski Area BMPS (Best Management Practices): Guidelines for Planning, Erosion Control, and Reclamation. Prepared by Wasatch-Cache National Forest.

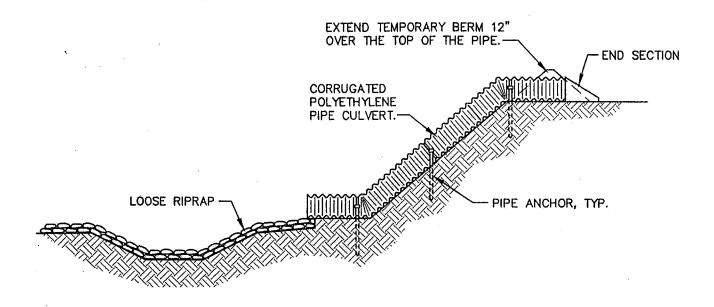




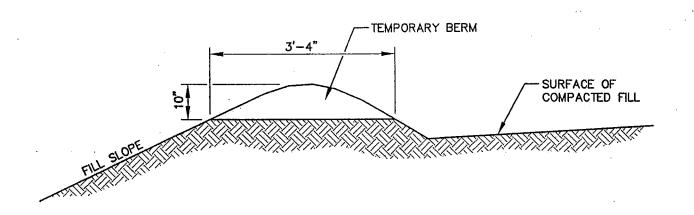
PERSPECTIVE VIEW



**SECTION** 

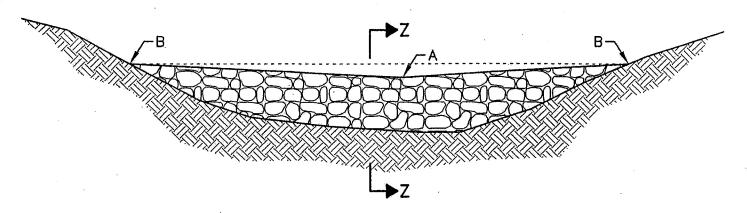


#### SLOPE DRAIN SECTION

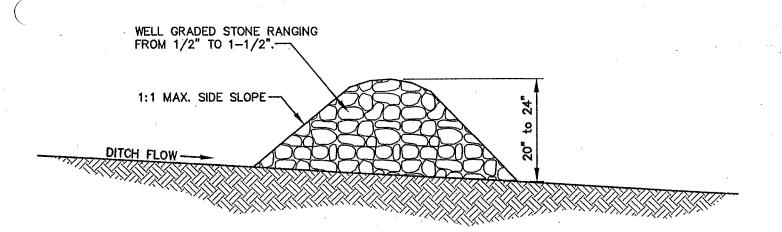


TEMPORARY BERM

CONSTRUCT THE CHECK DAM SO THAT POINT "A" IS APPROXIMATELY 4" LOWER THAN POINT "B".

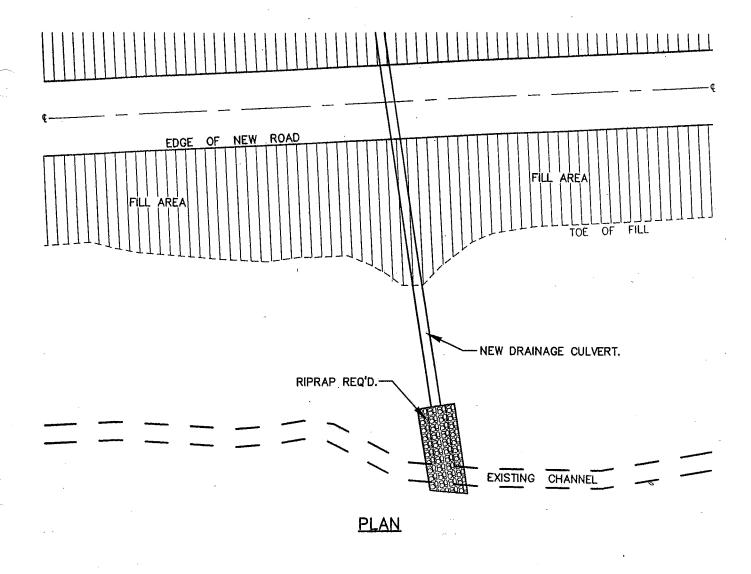


#### LONGITUDINAL SECTION



SECTION Z-Z

TYPICAL STONE CHECK DAM



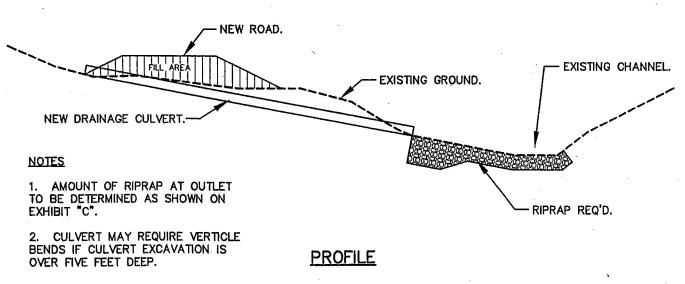
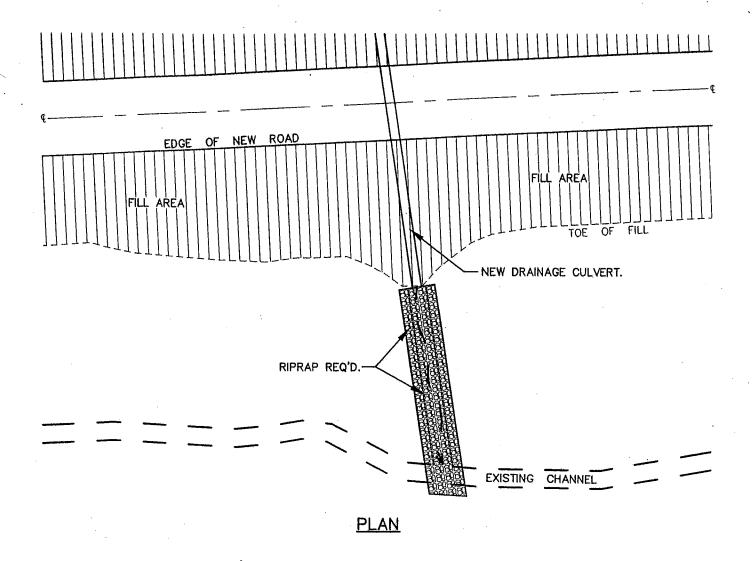


EXHIBIT "B-1"
TYPICAL CULVERT INSTALLATION - UNSTABLE DRAINAGES



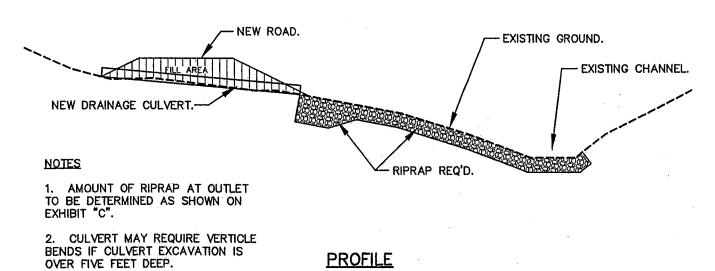


EXHIBIT "B-2"

TYPICAL CULVERT INSTALLATION - STABLE DRAINAGES

V = Velocity at the outlet of culvert.

T (thickness) =  $D/4 + 1/2 V_0^2/2G$ 

T min. = 1.0' and T max. = 4.0'

 $L (length) = 2D + 4 V_0^2/2G$ 

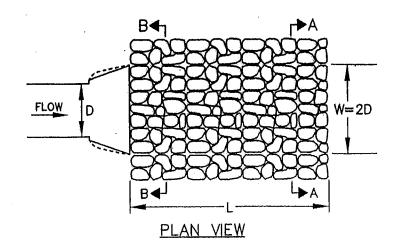
L min. = 10' Desirable

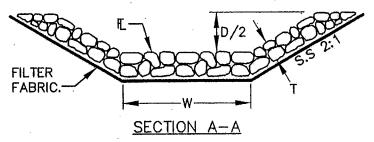
L max. = 30' Desirable

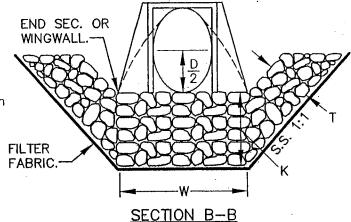
 $K \min = 3.0' \text{ and } K \max = 6.0'$ 

#### NOTES AND LIMITATIONS:

- In areas where the soil is erodible and the sign of scouring is present, the riprap can be used when V<sub>0</sub>≥4.0 FPS and V<sub>0</sub>≤15 FPS.
- 2. For Vo>15 FPS, other means of energy dissipators shall be considered.
- 3. In areas where the soil conditioning is stable or the bed material is rocky, riprap might not be needed. The judgement and discretion of design is of vital importance in the implementation of riprap.
- 4. In case of R/W restriction or any other constraints, the length of riprap can be shorter than shown above.
- 5. In extreme cases, the minimum and maximum values of T and K could be different from the specified values above.







FLOW

FLOW

FLOW

FILTER

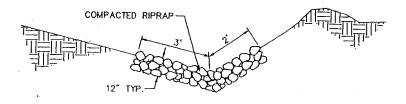
FABRIC.

PROFILE

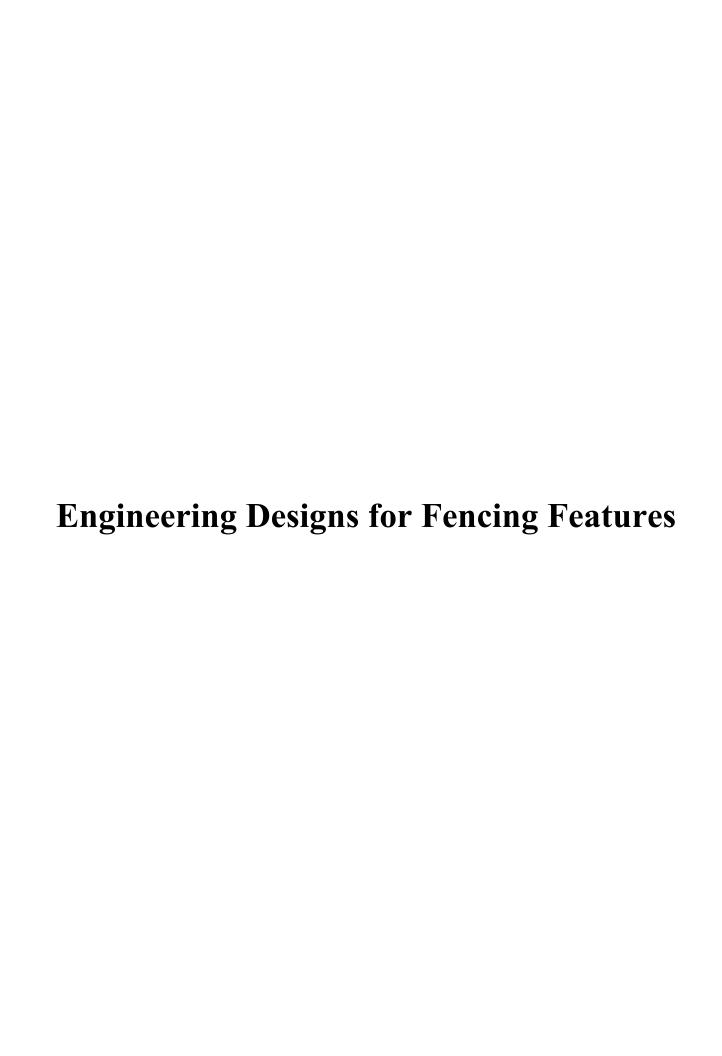
EXHIBIT "C"

GUIDELINE FOR LOOSE RIPRAP AT THE OUTLET OF DRAINAGE CULVERTS

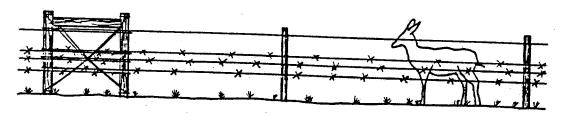
ROADWAY



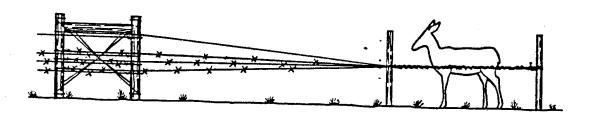
### RIPRAP LINED CUT DITCH



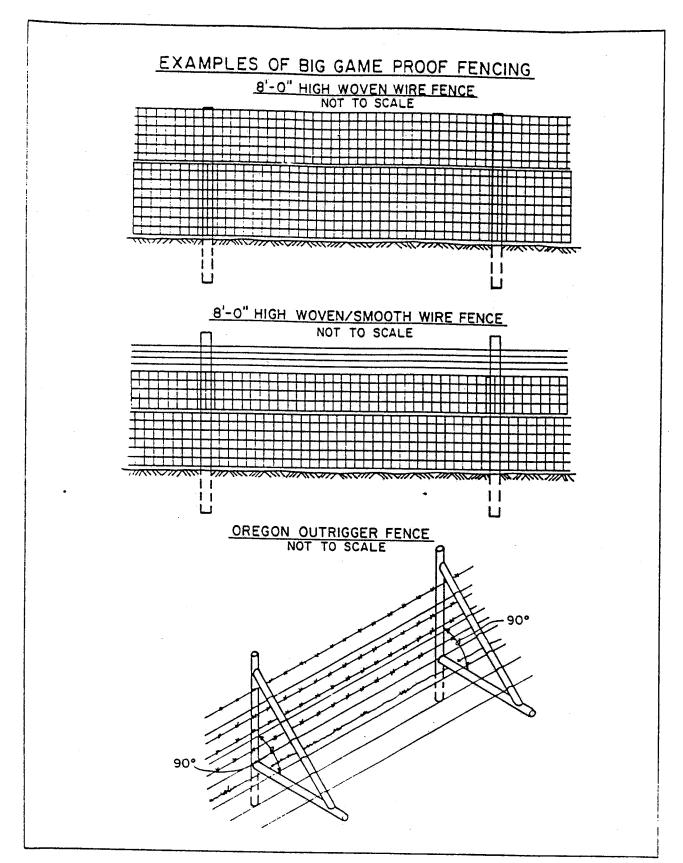
# EXAMPLES OF ADJUSTABLE FOUR-STRAND 42-INCH HIGH FENCE FOR DEER NOT TO SCALE

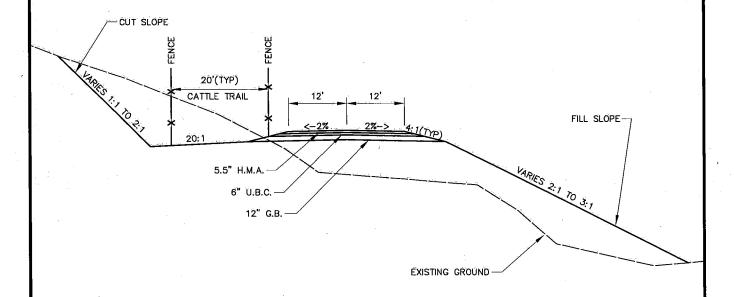


#### STANDARD CONFIGURATION



MODIFICATION ALLOWING NEARLY FREE MOVEMENT





#### CATTLE TRAIL TYPICAL SECTION

NO SCALE

STA 21+50 TO STA 46+50 STA 46+50 TO STA 49+00 (TRAIL = 10' WIDTH) STA 49+00 TO STA 53+00 STA 53+00 TO STA 53+50 (TRAIL = 10' WIDTH) STA 53+50 TO STA 56+50 STA 71+50 TO STA 77+00 (OPTIONAL) STA 80+50 TO STA 83+50 (OPTIONAL) STA 103+00 TO STA 104+50 (OPTIONAL)

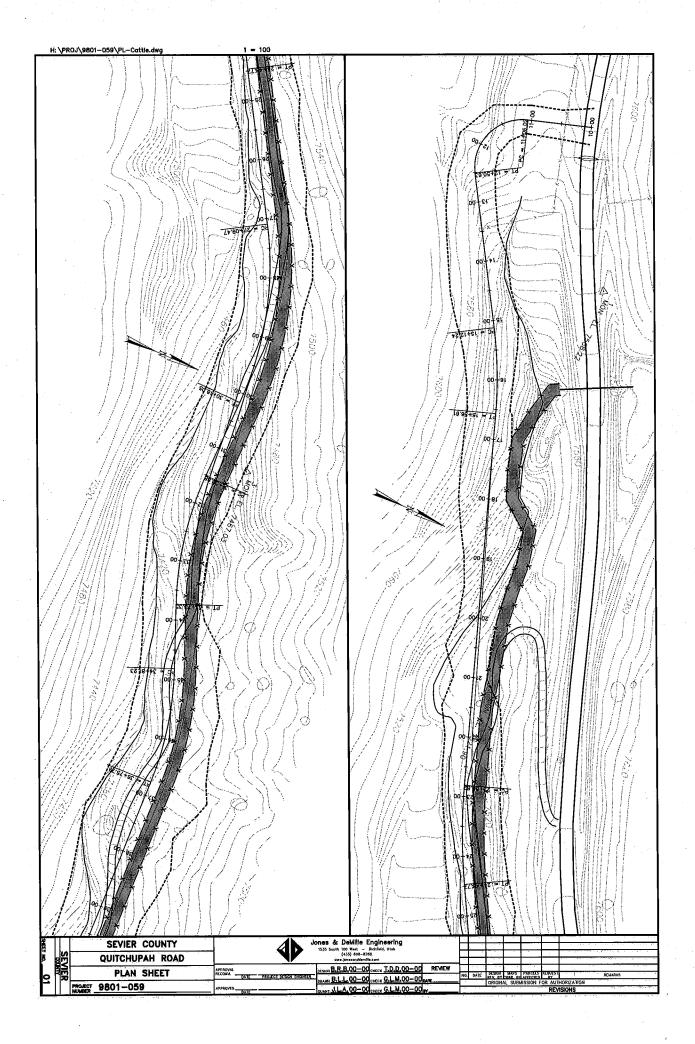


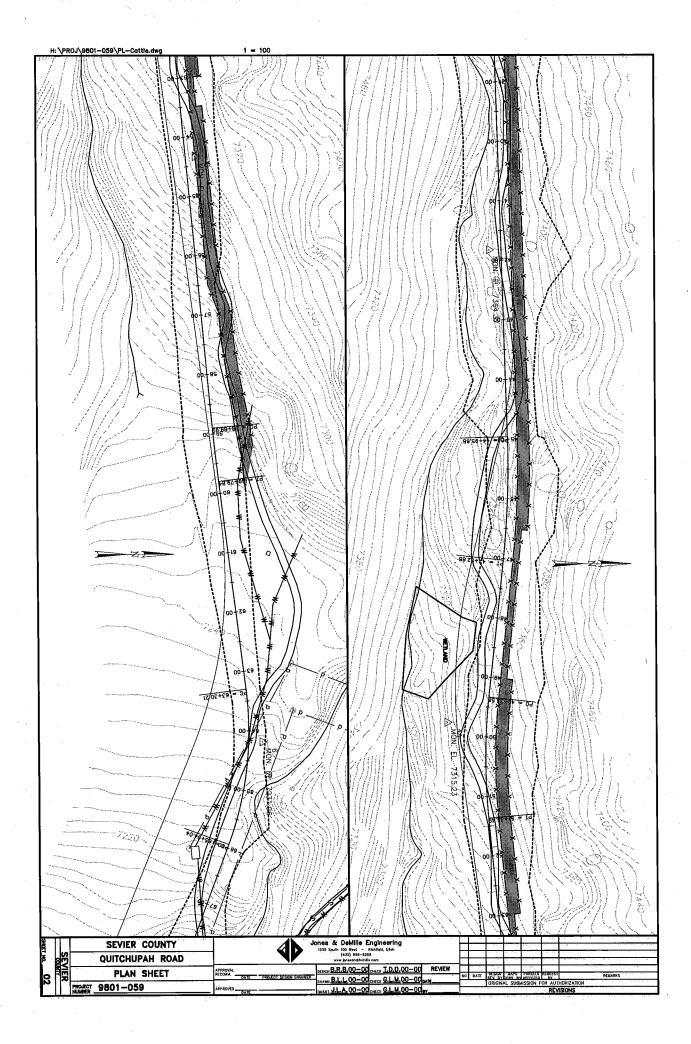
#### Jones & DeMille Engineering

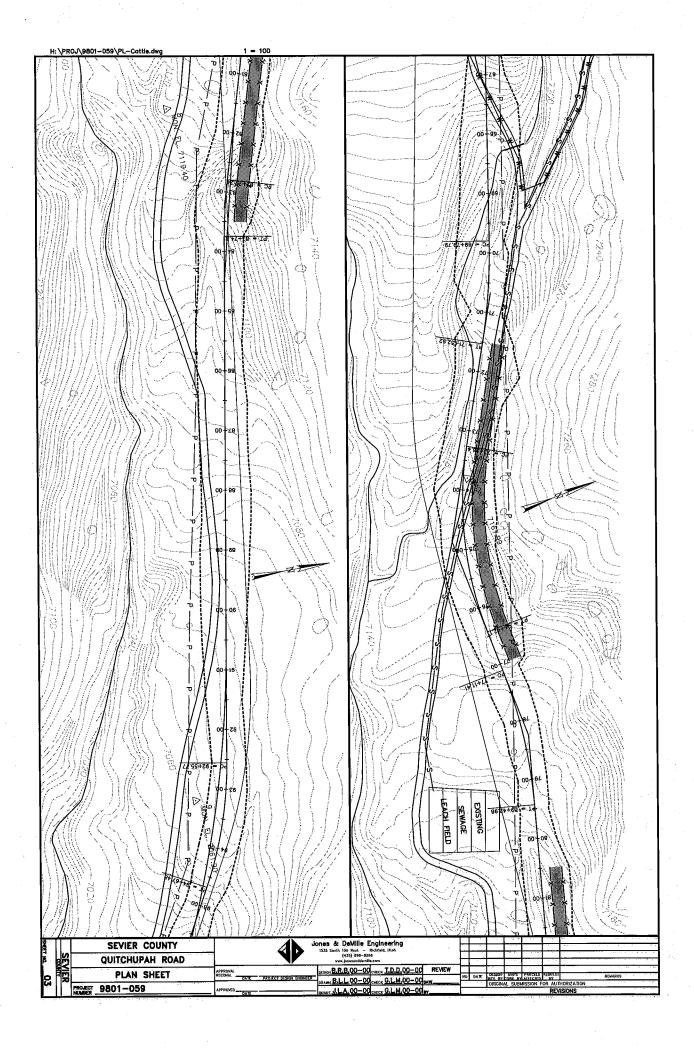
1535 South 100 West — Richfield, Utah 84701 (435) 896—8266 Phone (435) 896—8268 Fax www.jonesanddemille.com

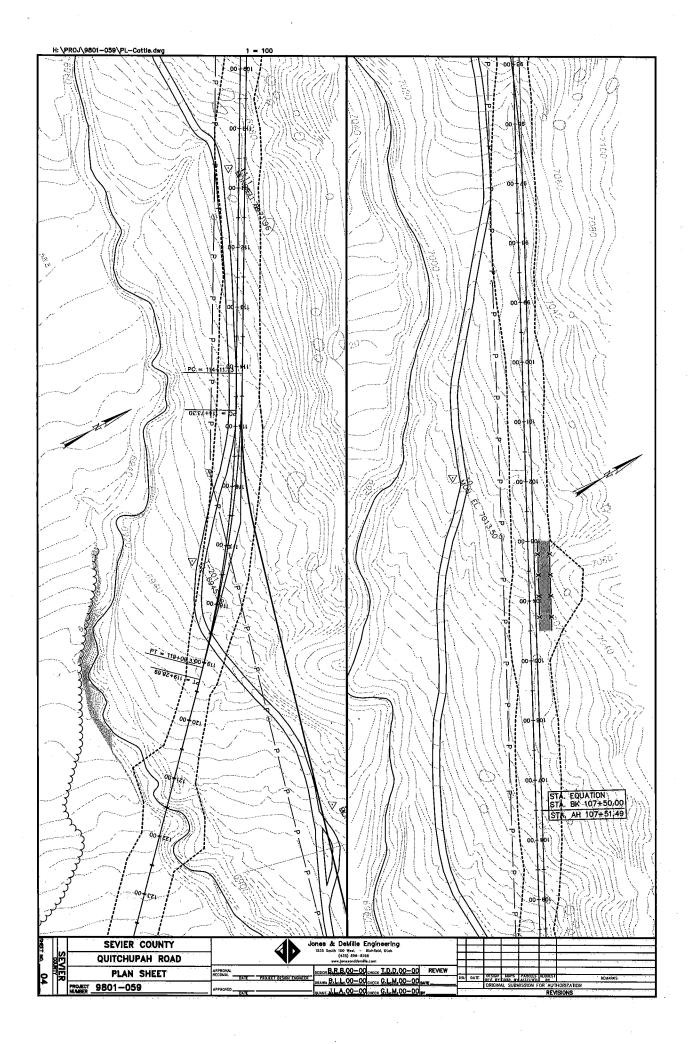
## Sevier County Quitchupah Road Cattle Trail Typical Section

SCALE: NONE	ENG.: B.R.B.	PROJ.#: 9801-059
DATE: 05/31/2005	DWG.BY: B.L.L.	DWG.NAME: TS-cattle









#### **APPENDIX C**

## LINK CANYON ALTERNATIVE DECISION



#### Department of Agriculture **Forest Service** Fishlake National Forest 115 East 900 North Richfield, Utah 84701 (435) 896-9233

Department of the Interior **Bureau of Land Management** Richfield Field Office 150 East 900 North Richfield, Utah 84701 (435) 896-1500



File Code: 1950/Quitchupah Creek Rd EIS

Route To:

Date: June 26, 2000

Subject:

Link Canyon Alternative Decision

To:

**Files** 

On June 23, 2000, Rob Mrowka, Fishlake National Forest Supervisor; Jerry Goodman, Richfield Field Manager, BLM; and Dick Manus, Price Field Manager, BLM determined that the Link Canyon Alternative is not economically viable and decided not to carry the alternative through the Environmental Impact Statement (EIS) process for further analysis. The Link Canyon Alternative is one of four alternatives being considered in the Quitchupah Creek Road EIS.

In addition to Mrowka, Goodman, and Manus, the responsible officials for this project, others attending the June 23 meeting were George Tetrault, Price BLM Mining Engineer, Jeff DeFreest, Ferron-Price and Sanpete Ranger District Geologist for the Manti LaSal National Forest; Jeanne Higgins, Fishlake National Forest Richfield District Ranger, Linda Jackson, Fishlake NF Strategic Communications Officer and project leader, and Stan Perkes and Max Nielsen, BLM State Office Coal Economists.

a prior project meeting on May 31, Stan Perkes and Max Nielson were asked to review the economic material presented by Canyon Fuel Co. and prepare an assessment of the economic viability of the Link Canyon alternative for review by the responsible officials. This analysis was presented at the June 23 meeting. The review showed that the Link Canyon Alternative is not economically feasible and does not fully meet the EIS Purpose and Need. As a result of this information, the responsible officials decided that the Link Canyon Alternative would not be considered for further analysis in the EIS process.

/s/ Linda L. Jackson

LINDA L. JACKSON Project Manager Quitchupah Creek Road EIS

#### **APPENDIX D**

## CUMULATIVE EFFECTS PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS

#### Appendix D

#### Past, Present, and Reasonably Foreseeable Future Actions

**Table D.1 Summary of Past Actions** 

Table D.1 Summary of Past Actions		
Past Actions	Implementation Dates (Begin and End)	Residual Effects
RANGELAND		
Livestock grazing occurred as allowed under the federal permit system.	Yearly	Grazing caused vegetative impacts, and most plant communities remain in early- to mid-seral stage. The riparian community has been heavily impacted in early-seral stage.
The Saleratus Bench Reservoir was constructed.	1981	The water source affects livestock distribution.
The Saleratus Drift Fence was installed.	1942	The fence affects livestock distribution.
Areas of the Water Hollow Benches were seeded.	1968	The plant community changed from disclimax pinyon-juniper to mid-seral shrub/grass community.
Walker Flat Well #2E was capped and the associated pipeline was removed.	1998	The livestock dispersal within the Saleratus allotment was reduced due to water source elimination.
The portion of SR-10 that lay within the Saleratus and M&O allotments was fenced by UDOT. Underpasses were built along mileposts 0.65, 4.05, 6.43 to facilitate cattle movement under the highway.	2001	The fencing and underpasses provide livestock control and increased safety along the highway.
WILDLIFE		
Areas of the Water Hollow Benches were seeded.	1968	The plant community changed from disclimax pinyon-juniper to mid-seral shrub/grass community, but poor distribution of livestock has impacted portions of seedings.

Past Actions	Implementation Dates (Begin and End)	Residual Effects
TRANSPORTATION		
The road in Quitchupah Creek was initially constructed to access the coal mine in Convulsion Canyon.	1940-50's	The road surface remains unstable in many areas and about 12 acres of un-maintained road is located in close proximity to streams.
The Acord Lakes Road, a ten-mile-long county road off of Interstate 70, was paved in 1977 for coal transport.	1977	The road continues to provides easy access to Acord Lakes area and SUFCO Mine.
The Consol Mine reopened and upgraded a road to facilitate coal truck traffic from the mine to SR-10 and the Town of Emery.	2002	The Consol Mine adds more coal truck traffic on SR-10 in the vicinity of Emery.
RECREATION		
The general area has been used for dispersed camping and hunting.	Since 1930s	Some dispersed campsites remain visible.
The general area has been used dispersed hunting and ATV travel.	Since 1930s (ATV use since 1980's)	Some ATV tracks and trails remain visible.
CULTURAL RESOURCES		
There have been unauthorized excavations of archeological sites.	1980s - 1990s?	Some vandalism of sites has occurred.
Various cultural resource surveys have been conducted.	1950's - present	24+ archeological and historical sites, some recommended eligible for the NRHP, have been located.
Cultural resources have been impacted by:		engible for the typerit, have been focused.
Livestock Trailing/Grazing	since ca.1880s	Sites may have been eroded away and/or destroyed.
Farming/Agriculture	since ca.1890s	Sites may have been eroded away and/or destroyed.
Recreation	1950s? - present	Sites have been vandalized.
Road construction and maintenance	ca.1890s - present	Sites have been adversely impacted and/or destroyed.
Powerline construction and maintenance Mining	1970s - present 1940s - present	Sites have been adversely impacted. Sites have been adversely impacted and/or destroyed.

Past Actions	Implementation Dates (Begin and End)	Residual Effects
ADMINISTRATIVE LAND USES		
Utah Power constructed three overhead power lines in the area in addition to one adjacent to the proposed road in Quitchupah Creek Canyon.	Approximately 1977	Residual disturbances consists of the old construction roads. The poles and structures are highly visible.
Telephone cable was buried beside the road and strung from power poles next to the road to provide service for SUFCO Mine.	2000	No residual effects have been noted.

 Table D.2
 Summary of Present Actions

Present Actions	Date	Current Effects
1 Tesent Actions	Date	Current Effects
MINERALS		
Canyon Fuel Company, LLC, SUFCO Coal Mine has been in operation since 1941. Portal and coal handling facilities are located on the Fishlake National Forest (Section 23, T. 22 S., R. 4 E., SLM). Mine access is via paved Accord Lakes road (County Road 40010) from I-70. The road is under Sevier County jurisdiction and will remain after the mine is reclaimed for access to fee lands and recreational properties. Disturbance for surface facilities totals 70 acres, which includes the Quitchupah Canyon portal/breakout on fee land. The existing permit area totals 17,308 acres, including 16,618 acres of Federal coal leases, 640 acres fee coal leases, and the waste rock disposal site (40 acres), and 10 acres under FS special use permits. Most of the areas has been mined and subsided (see SUFCO MRP and Annual Subsidence Monitoring reports). Mine production life as presently permitted would extend beyond 2013.	1941-present	See existing NEPA documents. Mining and Reclamation Plan (mine permit), Annual Subsidence and Hydrologic Monitoring Reports, and Cumulative Hydrologic Impact Assessment.
TIMBER		
There have been no Recent Actions.		There are no current effects.
CULTURAL RESOURCES		
An Ethnographic Study was recently completed in Quitchupah Canyon.	2004	The study documented Native American significance of the area.
Cultural resources are currently impacted by:		
Livestock Trailing/Grazing	ca.1880s-present	There may be some on-going erosion and destruction.
Farming/Agriculture	ca.1890s-present	There may be some on-going erosion and destruction.
Recreation	1950s?-present	The potential remains for vandalism.
Road maintenance	ca.1890s-present	Sites continue to be adversely impacted and/or destroyed.
Powerline maintenance	1970s-present	Sites continue to be adversely impacted.
Mining	1940s-present	Sites continue to be adversely impacted and/or destroyed.

Present Actions	Date	Current Effects
RANGELAND  Livestock grazing occurs as allowed under the federal permit system.	Yearly	Grazing continues to cause vegetative impacts, and most plant communities remain in early- to mid-seral stage. The riparian community continues to be heavily impacted in early-seral stage.
WILDLIFE		
An annual raptor survey is conducted by UDWR.	on-going	The survey data improves the database for raptors.
RECREATION		
There is continued dispersed camping/hunting and ATV use. In 1997, about 100 recreation visitor days/year (RVD/Yr) were estimated.	On-going	Some dispersed campsites are visible.
ADMINISTRATIVE LAND USES		
The powerline is maintained as needed.	On-going	Maintenance access via two-track roads causes some erosion.
TRANSPORTATION		
Pavement rehabilitation has been done on SR10 – Fremont Junction to Quitchupah Hill.	2005	Work results in road improvement which increases safety and traffic flow.
The SR10 Bridge north of Emery was replaced.	2005	The bridge replacement increases safety and traffic flow.

Table D.3 Summary of Reasonably Foreseeable Future Actions (within ten years, 2005-2015)

Future Actions	Date	Anticipated Effects
T dear o rections	Dutt	Interpreted Directo
MINERALS		
The Muddy Coal Lease Tract, which lies directly north-northwest of the Pines Coal Lease Tract, may be applied for at some time in the foreseeable future.	Not possible to determine	Mining in the tract would use underground methods, and would likely be accessed from existing underground system. Surface disturbance would continue at portal. The mine water discharge would continue in North Fork.
Exploratory drilling for methane gas on Section 16 as authorized by SITLA may occur.	near future	Exploration activities would require improvement of the existing road to access Section 16, and short trails would be developed within the section.
TIMBER		
No Planned Sales or Actions.		There are no anticipated effects.
RECREATION		
There will continue to be dispersed camping/hunting and ATV use, predicted at about 100 recreation visitor days/year.	On-going	There will continue to be some evidence of dispersed use.
The BLM Travel Plan will be completed and implemented.	2006	The plan will establish goals, objectives, and policies for land use management. It may restrict or alter OHV use on public lands in Quitchupah Creek area.
The FS OHV Route Designation Plan will be completed and implemented.	2006-2007	The plan will establish management standards and guidelines for OHV use on the forest. It will close the upper area of existing Quitchupah Creek road on Forest Lands to OHVs. This would impact the proposed SEUOHV Castle Valley Trail system.
RANGELAND		
Livestock grazing will continue to occur as allowed under the federal permit system.	Yearly	Grazing will continue to cause vegetative impacts, and most plant communities are likely to remain in early- to mid-seral stage. The riparian community will continue to be heavily impacted in early-seral stage.

Future Actions	Date	Anticipated Effects
AGRICULTURE  Farmed lands along Quitchupah Creek are likely to be converted from flood irrigation to pressure pipe sprinkler irrigation.	Near future	The NRCS has completed an EA to fund and implement irrigation conversion measures to reduce salt loading in the Muddy Creek Unit of the Colorado Salinity Control Program, which includes Quitchupah Creek. Members of the Muddy Creek Irrigation Company, which includes landowners along Quitchupah Creek, requested the NRCS assistance. The program would reduce salt loading to Quitchpah Creek due to irrigation by 78 %, from 923 tons annually to 720 tons annually.
WILDLIFE Annual raptor inventories will continue.	on-going	The spring helicopter surveys to monitor raptor use of area will continue, and may expand to include additional survey areas agreed upon by the agencies.
Big game counts will occur.	on-going	Winter counts will monitor big game populations and use on Water Hollow and Saleratus benches
The Salina Creek Vegetation Management Project will likely be implemented.	near future	The purpose of the proposed project is to reduce the threat of wildfire to private homes and property, restore ecosystem function by moving toward the desired vegetation condition, re-initiate fire as a disturbance within the analysis area, and improve forage for wildlife. Within the Quitchupah Creek watershed approximately 1300 acres would be treated by prescribed burning within three units in the Broad Hollow, Mud Springs Hollow, and upper East Spring Canyon areas. The objective is to burn approximately 50-70 percent of each unit in a mosaic pattern that will create a diversity of structural stages, age classes and species composition.

Future Actions	Date	Anticipated Effects
TRANSPORTATION		
New road construction associated with exploratory drilling for coalbed methane gas may occur.	Possible sometime during project life	Temporary roads would be developed on Water Hollow and Saleratus Benches. All roads and pads would be reclaimed. Also see discussion under Minerals.
Preliminary Engineering of SR-10 improvements will be done by UDOT from Emery to Muddy Creek.	2008	Any resultant road improvements would help to meet traffic demands, roadway access, and improved safety.
UDOT will rehabilitate pavement on SR10 from Muddy Creek to Ferron.	2008	Pavement rehabilitation would improve traffic flow and provide increased safety. Construction periods would constrain traffic movement, including coal trucks transporting SUFCO Mine coal.
The Moore Road is likely to be upgraded to AASHTO standards to serve as rural collector road from SR-10 to I-70.	2002-2030	The road, when completed, would provide another access for eastbound traffic to I-70 from SR-10, possibly relieving traffic on SR-10 for 16 miles from Moore Junction to Fremont Junction.
CULTURAL RESOURCES		
Cultural resources could continue to be impacted by: Unauthorized collection of artifacts Powerline maintenance Livestock Trailing/Grazing Recreation Proposed Road Construction Farming and Agriculture Mining Potential further research conducted at archeological sites in area.	Sporadic on-going on-going on-going Project life (2006?) On-going On-going Possible sometime during project life	This would result in data loss, compromised integrity of sites.  There could be erosion and possible adverse impacts. There could be erosion and adverse impacts. There could be unauthorized collection and vandalism. There could be adverse impacts to eligible sites. There could be erosion and adverse impacts. There could be adverse impacts to eligible sites. There could be adverse impacts to eligible sites. This would require separate NEPA analysis, permits and compliance with appropriate laws.
ADMINISTRATIVE LAND USES  The BLM Resource Management Plan (RMP) will be completed.	2006	The RMP will provide guidelines for management of public lands and designate land uses.

# APPENDIX E NATIVE AMERICAN CONSULTATION

#### NATIVE AMERICAN CONSULTATION

On March 19, 1999, representatives from JBR, the SHPO, Jones & DeMille Engineering and the BLM met on the site of the proposed Quitchupah Creek Road to discuss the archaeological sites located on the proposed route. Official Native American consultation had not started because the proposal was still in the conceptual stage. Following the March 19th meeting, the archaeologist from the BLM Richfield Field Office was assigned as the joint agency cultural specialist for this project. Coordination with the cultural representative from the Koosharem Band of the Paiute Tribe began on March 19, 1999. Over the next few months, representatives from the Paiutes visited the Quitchupah Creek area several times to become familiar with the project and examine the proposal and Alternatives being considered. The Paiutes expressed opposition to any project along Quitchupah Creek because of their claim that the canyon is sacred and human activity could impact this value. The Tribe also expressed opposition to any excavation of archaeological sites; a process they view as destructive. The Paiute Tribe of Utah made this position known to the FS/BLM in a letter submitted on July 22, 1999.

Efforts were also underway during this time to identify other tribes who might have a historical interest in the general area involved in this project. On June 23, 1999, contact was made with Ms. Betsy Chapoose of the Uintah & Ouray Tribal Committee Cultural Rights & Protection Department in Ft. Duchesne, Utah. A field tour of the Quitchupah Creek Road was subsequently completed with a Tribe representative. The Ute's concern extends to all sites in the canyon, but focuses on the rock art. The Tribe has expressed that at least a ½-mile buffer around rock art sites - preferably one mile buffer, would be necessary to protect rock art sites.

On July 12, 1999, contact was made with the Navajo Nation in Window Rock, Arizona. A representative in the Navajo Nation Cultural Preservation Office indicated they had no interest in this project.

On July 13, 1999, the Hopi Cultural Preservation Office was contacted. Mr. Leigh Kuwanwisiwma, head of the Hopi Cultural Preservation Office, stated that the Hopi are very interested in Fremont archaeological sites and projects that may affect them. Accordingly, the BLM Richfield Field Office opened formal consultation with the Hopi Tribe on the Quitchupah Creek Road project. On November 21, 2000, a letter was sent to the Hopi Tribe requesting comments or concerns the Tribe may have with the project.

A written response was received from the Hopi Tribe in December 2000 claiming affiliation with the Fremont and asking for copies of all pertinent materials on the Quitchupah Creek Road project; these materials were forwarded to the Tribe. After the Tribe had reviewed the Quitchupah Creek Road material, the BLM Richfield Field Office received an invitation to attend an upcoming Tribal Administrative Meeting. In the invitation, the Tribe stated interest in the Quitchupah Creek Road project and expressed that it seemed a non-controversial issue since the sites on the main Quitchupah Creek route (Alternative B and C) could be avoided by implementing the Water Hollow Alternative (Alternative D).

On March 21, 2001, representatives from the BLM Richfield Field Office spoke at the Hopi Administrative meeting at Hopi Tribal Headquarters in Kykotsmovi, Arizona. Mr. Leigh Kuwanwisiwma and Clay Hamilton represented the Hopi Tribe. As per the Tribe's request, the BLM presented a briefing on the Quitchupah Creek Road Project and Alternatives. Copies of the cultural inventory reports on the Quitchupah Creek Road and Water Hollow routes were provided to the Tribe. The Tribe stated that as long as the sites on the Quitchupah Creek route

could be avoided by implementing another Alternative route, the Tribe would have no issue with the project. They understood that avoidance would not be an option along Quitchupah Creek because of the confines of the canyon and therefore would not support it. At that time, the Hopi approved of the Water Hollow Alternative. The Hopi also stated that they would defer to the Paiute Tribe of Utah on any Quitchupah matters.

August 22, 2001, the Ute Tribe inquired as to any new developments on the project and reiterated their opposition to the project in Quitchupah proper.

A meeting at the Paiute Tribal Headquarters in Cedar City took place on September 18, 2001 and a tour of the project area was set up for October. The Paiute tour took place on October 17, 2001. At this time, the Paiute representative expressed opposition to the project within the Quitchupah Creek corridor but accepted the Water Hollow Alternative on the condition of cultural site avoidance. A comment letter formally communicating the tribe's position was received by the BLM on February 15, 2002.

In letters dated October 24 and October 31, 2002, the Hopi, Paiute, and Ute Tribes were asked to participate as Consulting Parties on this project. As a Consulting Party, the tribes would actively participate in analyzing the impacts of the alternatives, seeking acceptable mitigation of impacts, and resolving adverse effects. The Paiute and Ute tribes accepted the Consulting Party invitation. The Navajo stated their area of concern was further south and deferred to the Paiute. The Hopi deferred to the Paiute.

On November 5, 2002, a meeting between the agencies and the BLM Utah State Office was held to discuss the Native American Consultation. It was agreed upon that a meeting would be held with each participating tribe to discuss the role of Consulting Party, discuss Traditional Cultural Properties and sacred sites, and update them on the project.

The agencies attended the January 2, 2003 Paiute Tribal Council meeting to make a presentation on the Quitchupah Road project. On April 28, 2003, the agencies met with the Utes. An additional field tour was requested at that time.

A formal letter dated April 29, 2003 from the Paiute Indian Tribe of Utah stated their opposition to the Quitchupah Creek Road Project due to "the need to destroy culturally significant objects which we consider sacred to our tribe."

On August 18, 2003, the BLM Richfield Field Office archaeologist toured the Project Area with Dorena Martineau, Cultural Resource Director of the Paiute Tribe. The Paiute Tribal representative was interested in seeing the canyon and some of the archaeological sites there. Sacred issues were discussed.

On August 20, 2003, the BLM Richfield Field Office archaeologist and the BLM State Office archaeologist met with the Paiutes at their tribal office in Cedar City. The Paiutes stated that although they may regard a wider area as being sacred, a boundary to the sacred site could be drawn using the physical canyon from the headwaters to the terminus at the bottom. This is the core area of concern. Further, a Paiute representative stated there is at least one place in the canyon used traditionally for religious ceremonies; building a road would interfere with, compromise, or destroy the ability of tribal members to continue with these traditions. At this time, it was stated that the Tribe was opposed to all build alternatives since they all require construction within the sacred site; adversely affecting sacred values by further disturbing the

location and setting. Heavy and loud truck traffic, increased recreational traffic, camping, and vandalism would also cause disturbance to the sacred site.

For a period of several months between December 17, 2003, and September 14, 2004, there were innumerable contacts between the Richfield Field Office BLM and the Paiute Tribe discussing and coordinating the ethnography in Quitchupah Canyon. Dr. Richard Stoffle of the University of Arizona at Tucson was retained to conduct the study mainly because of existing relationships he had established with the Paiute people. Mr. Stoffle and the BLM reviewed the Quitchupah area on April 23 and 24, 2004, to select the sites that would be used for the field interviews with the Paiute participants in the study. The field portion of the ethnographic study was conducted on May 19 and 20, 2004. The preliminary ethnographic report was submitted in June 2004 and the final report arrived in September 2004.

On September 14, 2004, Dorena Martineau and Arthur Richards (both Paiute tribe) along with the BLM Richfield Field Office archaeologist flew the Water Hollow Alternative route in a helicopter just to make sure that tribal representatives had seen the entire route. After seeing the route, the Paiute Tribe of Utah agreed that a road on the Water Hollow Bench was their preferred alternative.

The Paiutes' provided a letter, dated October 5, 2004, which expressed their satisfaction with the ethnographic work conducted by Richard Stoffle. In this letter, the Paiute also stated their support of the Water Hollow route.

During an October 19, 2004 meeting at the Navajo Nation Window Rock Office, Marklyn Chee expressed that the Navajo Nation currently is very interested in actions that take place in this part of Utah. Regarding Quitchupah specifically, the Navajo support the claims of the Paiute and Hopi in this area. They have no concerns about sacred sites in the Quitchupah area, but certainly support other tribes in their claims. The Navajo are mainly interested in the nearby Henry Mountains, which they claim as a traditional cultural property. The Navajo defer to the Paiute.

The Paiute Tribe provided a letter dated February 24, 2005 regarding their approval of the riparian fencing mitigation along Quitchupah Creek. At this time the Tribe also stated that they did not want the rock art and other cultural sites to be fenced. The Tribe expressed that protective barriers or fencing would draw attention to the sites and likely cause the very thing it was designed to prevent.

A letter dated August 2, 2005 from the Paiute Indian Tribe of Utah to the Richfield BLM acknowledged the Tribe's review of the Draft Final EIS and their satisfaction with the preferred alternative.

# APPENDIX F USFWS CORRESPONDENCE



### United States Department of the Interior FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE 2369 WEST ORTON CIRCLE, SUITE 50 WEST VALLEY CITY, UTAH 84119

to Reply Refer to FWS/R6 ES/UT 05-0777

October 24, 2005

Mary Erickson
Forest Supervisor
Fishlake National Forest
U.S. Department of Agriculture
115 East 900 North
Richfield, Utah 84701

RE: Informal Section 7 Consultation for Quitchupah Creek Road Project

Dear Ms. Erickson:

The U. S. Fish and Wildlife Service (USFWS) has reviewed the Biological Assessment for the Quitchupah Creek Road project. We apologize for the delay in responding to your request for concurrence. The project involves the upgrade in Quitchupah Creek of 9.2 miles of an existing road/trail, which connects Acord Lakes Road with State Road SR-10 in Emery County. The completed road would be a 29-foot wide paved surface, with an operational right-of-way of 66 feet. No facilities would be built in association with this alignment.

Conservation measures committed to in the proposal include:

 An eight (8) feet high fence, complete with big game escape structures and migration underpass, and daily careass monitoring, would be employed to prevent big game erossing the road and minimize the potential for bald eagle foraging.

Based on the aforementioned conservation measure, on information provided in your letter of April 29, 2005, a revised Biological Assessment of May 25, emails to our office from May 15, June 2, and October 13, 2005, and conversations between our offices on May 19 and October 12, 2005, the USFWS concurs with your "not likely to adversely affect" determination for the Last Chance Townsendia, Winkler cactus, San Rafael cactus, and bald eagle. No critical habitat has been designated for any of these species. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

We base our concurrence primarily on the following:

- Human disturbances within 0.25 miles of bald eagle winter roost sites and within 1.0 miles of nest sites are considered a potential impact by the Utah Field Office, depending in part, on activity type, duration, timing, and topography [Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (2002)]. No known bald eagle roost sites occur within, or within one-half mile of the project area. In addition, no bald eagle nest sites are known to occur within one mile of the project area.
- Wintering eagles occur in Utah from November 1 through March 31, and may
  infrequently travel through or forage in the project area. However, the project area does
  not contain habitat suitable for winter roost sites within 0.25 miles of project activities.
  Noise or activities associated with road construction and operation will, therefore, not
  affect eagle behavior at winter roost sites.
- An eight (8) feet high fence, complete with big game escape structures and migration
  underpass, and daily carcass monitoring and removal, would be employed to prevent big
  game crossing the road. This measure would avoid creation of an attractive nuisance for
  bald eagles and minimize to insignificant the risk of bald eagles foraging on carcasses.

Based upon the lack of nests or winter roost sites in the area; incorporation of fencing and migration underpass measures to significantly minimize big game mortality; and the commitment to daily carcass monitoring and removal, we believe the potential for impact to the bald eagle from the project is remote and insignificant. Therefore, we concur that the proposed action may affect, but is not likely to adversely affect the bald eagle.

We appreciate your interest in conserving endangered species. If further assistance is needed or you have any questions, please contact Diana M. Whittington, Fish and Wildlife Biologist, at (801) 975-3330 extension 128,

Sincerely,

Henry R. Maddux Utah Field Supervisor

### RICHFIELD RANGER DISTRICT FISHLAKE NATIONAL FOREST

## FOR FEDERALLY LISTED PLANT AND ANIMAL SPECIES

#### QUITCHUPAH CREEK ROAD PROJECT

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(revised from March 2003 and January 2002 version)

August 2003

Revised December 2004

May 2005

Approved by:	
Fishlake National Forest	Date
BLM, Richfield Field Office	Date

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### BIOLOGICAL ASSESSMENT QUITCHUPAH CREEK ROAD PROJECT

#### 1.0 INTRODUCTION

The Sevier County Special Services District (SSD) has submitted right-of-way applications to the USFS (US Forest Service) and the BLM (Bureau of Land Management) for the upgrade of 9.2 miles of an existing road/trail in the Quitchupah Creek drainage. The road segment connects the Acord Lakes Road (Sevier County Road 010), with State Route (SR) 10 in Emery County. The road would connect with SR-10 in the N½ of Section 30, Township 22 South, Range 6 East. To the northwest into Sevier County, and then westward, the road would generally follow an existing trail along Quitchupah Creek, into Convulsion Canyon, where it would connect with the paved Acord Lakes Road in SW¼ of Section 11, Township 22 South, Range 4 East. Figure 1 presents the project's regional location. The land ownership in this corridor is a combination of private, BLM, USFS, and Utah State School and Institutional Trust Lands Administration (SITLA). The project area embodies a fairly diverse set of climatic, geologic, physiographic, and ecosystem characteristics.

Section 7 of the Endangered Species Act (ESA) of 1973, as amended, stipulates that no federal action shall jeopardize the continued existence of any threatened or endangered species or adversely modify their critical habitat. Because the project area lands are federally administered, road construction on these lands is considered a federal action. A Biological Assessment (BA) evaluates the potential effects of a proposed action on federally listed threatened, endangered, proposed, and candidate species (collectively referred to herein as listed species), and determines whether any such species or their habitats are likely to be adversely affected by the action. The purpose of this BA is to evaluate the potential impacts of road construction activities associated with the Quitchupah Creek Road Project on those listed plant and animal species that could occur within the project area.

The species accounts and discussion of potential impacts on those species resulting from the Alternatives, as discussed below, have been extracted from information contained in the technical reports associated with the Quitchupah Creek Road Project EIS.

#### FIGURE 1

## 2.0 PROJECT AREA DESCRIPTION

#### 2.1 REGIONAL CHARACTERISTICS

From a regional perspective, the project area is predominantly located within the High Plateaus Section of the Colorado Plateau Physiographic Province. The High Plateaus are marked by gently rolling or near-flat surfaces, through which drainages have dissected the otherwise gentle topography. The drainages typically form steep canyons cut through sedimentary rock. Adjacent to the High Plateaus, the eastern end of the project area is located within the Mancos Shale Lowlands Subsection of the Canyonlands Section of the Colorado Plateau Province. Topography in this Subsection is influenced by the weak sedimentary rock at the eastern base of the High Plateaus.

According to the modified Köppen System, the majority of the project area can be classed as a Steppeland climate. Steppelands are located between the true desert areas and the higher mountains. They are generally semi-arid, with annual evaporation exceeding annual precipitation; a summer moisture deficit is typical. The western-most edge of the project area borders on Undifferentiated Highlands, according to the modified Köppen System, and has a less significant moisture deficit.

The regional physiography and climate influence vegetation characteristics. Located within the Upper Sonoran and Transition Vegetation Zones, the area contains a variety of vegetative types and habitats ranging from forest to brush-dominated communities to sparse small desert shrublands. The presence of water further modifies these vegetative types, and localized areas of riparian and wetland communities are also found.

#### 2.2 LOCAL CHARACTERISTICS

The upper, western end of the project area is located near the top of the north-south trending Wasatch Plateau. Following along a major dissection in the Plateau, the Convulsion Canyon/Quitchupah Creek drainage traverses across the east side of the Plateau and out of canyon confines. The Water Hollow Benches are south of Quitchupah Creek; they are highly dissected with numerous ephemeral drainages that cut through the bench surfaces. The eastern portion of the project area crosses shale flats to the alignments' terminus at SR-10. As the alignments drop from the high plateau country to the flatland, project area characteristics vary significantly.

As mentioned above, the project area is associated with a canyon complex that dissects the plateau surface. The proposed Quitchupah Creek Road alignment traverses, and cuts through, numerous sedimentary geologic formations as it makes its way eastward across the plateau. These formations include the Mesaverde Group and the Mancos Shale Group.

The horizontally bedded nature of these formations, as well as their component range of texture classes, is evident from the steep canyon walls, escarpments, and badlands visible in the project area. Flat ledges, vertical cliffs, and sloping erosional and depositional surfaces all contribute to the varied relief in the project area. Faulting and fracturing also

affect the local topography, and in fact, the location of Quitchupah Canyon and its tributaries are likely dictated by the geologic structure.

The project area is located in the Quitchupah Creek watershed, which is part of the Colorado River system. At its upper end, where it is known as Convulsion Canyon, the watershed collects flows from small tributaries. Water Hollow, The North Fork of Quitchupah Creek, and Link Canyon Wash are three of the larger tributary channels that drain toward the project area. The Water Hollow Benches area to the south of Quitchupah Creek has numerous ephemeral drainages that head primarily southeast toward the creek. These drainages and tributaries have had a major influence on the area's topography as they cut down through, and laterally across, the valley bottom sediments.

The climate and physiography within the majority of the project area has generally not been conducive to extensive soil development; as such, vegetation is sparse over much of the project area. However, at the upper, westernmost end, where climate and topography are more amenable, soils with defined horizons and an organic component have developed over time and have not eroded away. They support pine (*Pinus spp.*), aspen (*Populus tremuloides*), scrub oak (*Quercus spp.*), and mountain mahogany (*Cercocarpus spp.*), as well as significant understory vegetation.

Over most of the rest of the area, extensive exposed bedrock occurs adjacent to the proposed and alternate road alignments. Many other areas where soil development has occurred have been subject to extensive erosion by wind and water. These areas support only sparse vegetation, ranging from scattered pinyon (*Pinus edulis*) and juniper (*Juniperus spp.*) woodlands with sparse understory to low-density desert brush lands where shadscale (*Atriplex confertifolia*) and other saltbush communities dominate. The former floodplain (now terrace) of Quitchupah Creek contains well-developed soils that support sagebrush/grass vegetation communities. The perennially flowing stream corridors of Quitchupah Creek and Water Hollow Creek support a varying mixture of riparian species.

In addition to the function of the project area in filling various habitat niches for wildlife, cattle grazing has occurred within the bounds of the project area for many years. These land uses are the predominant ones within the sparsely populated region.

## 3.0 ALTERNATIVES

The formulation of alternatives was guided by the focus issues; purpose and need; land use objectives of the BLM San Rafael Resource Management Plan (RMP)(BLM 1991) and Forest Planning Unit Management Framework Plan (FPU MFP) (1982) and the Fishlake National Forest (FLNF) Land and Resource Management Plan (LRMP) (USFS 1986); and the need to comply with Federal, State, and local laws, regulations, and policies. The potential alternatives were evaluated by the Interdisciplinary Team (IDT) to determine whether they addressed the focus issues, met the purpose and need of the project, and were technically and economically feasible. During the alternatives development process, the IDT reviewed a reasonable range of potential alternatives. The alternatives developed encompass the complete spectrum of possible decisions that range from no action to selection of one of three alignment alternatives. A variety of factors were examined during the development of the alternatives for the DEIS. Consideration was given to avoidance and/or minimization of effects to water (surface and groundwater), wetlands, vegetation, wildlife, special status species, range/livestock, cultural resources, public safety, and aesthetics. However, the steep natural terrain between the Acord Lakes Road and SR10 limits the options available for locating roads and other surface facilities. The final alternatives range from not allowing any of the proposed actions (No Action), to selecting one of three alignment alternatives (Figure 2):

Alternative A - No Action

Alternative B - Quitchupah Creek Road Alignment

Alternative C - Alternate Junction with SR-10 and Alternate Design of Quitchupah Route

Alternative D - Water Hollow Route

Under all the action alternatives (Alternatives B, C, and D), the finished road would be a 28-foot wide paved surface; with an operational right-of-way (ROW) of 66 feet. Three pullouts for parking off the road shoulder would be provided at the Link Canyon channel crossing, North Fork, and at East Springs Creek Canyon. The construction corridor would vary from 50 feet to 60 feet on flatter ground (eastern end) to an average of 100 feet for the remainder of the route. The road would be designed for a speed of 40 miles per hour, and would be constructed according to the standards of the American Association of State Highway and Transportation Officials (AASHTO) and the Utah Department of Transportation (UDOT) 2004 (or most current ) Standard Specifications for Road and Bridge Construction. In addition, approximately 1.7 acres of riparian habitat would be filled under all the action alternatives. No support facilities would be built under any of the alternatives.

# FIGURE 2

#### 3.1 ALTERNATIVE A - NO ACTION ALTERNATIVE

Under the No Action Alternative, coal would continue to be hauled from the SUFCO Mine to markets east and west via the Acord Lakes Road, I-70, and SR10. In 2003, approximately 3.8 million tons of coal was hauled to Pacificorp's Hunter Power Plant. An increasing reliance on SUFCO coal is expected in 2004, to 4.5 million tons. This equates to approximately 118,421 truck loads hauled in 2004. An additional indeterminate amount will be hauled to the railroad loadouts in Carbon County for shipment to eastern customers.

A public road for the purposes of transporting coal or providing alternate access to the SUFCO Mine would not be built in Convulsion Canyon/Quitchupah Creek area. The existing transport route of Acord Lakes Road to I-70 to SR-10 to power plants and railroad loadouts would continue. The entire existing two-track road would remain in place and in use as conditions/ maintenance allow. Also the current land uses in the Quitchupah Creek area would continue.

Under this alternative, the existing uses and environment in the Quitchupah Creek and Water Hollow would continue unchanged in the foreseeable future.

#### 3.2 ALTERNATIVE B - QUITCHUPAH CREEK ROAD ALIGNMENT

The proposed Quitchupah Creek Road would be located along an existing route through Quitchupah Canyon from a point on SR10 in the north half of Section 30, T. 22 South, R. 6 East in Emery County, to a paved mine road in Convulsion Canyon, Sevier County (SW 1/4 Section 11, T. 22S, R. 4E). The road would generally follow an existing trail along Quitchupah Creek and into Convulsion Canyon (Figure 2). Under Alternative B, the road would be 8.9 miles in length with a total new disturbance of approximately 92.3 acres.

## 3.3 ALTERNATIVE C - ALTERNATE JUNCTION WITH SR10 AND ALTERNATE DESIGN

Under this alternative, the alignment would deviate from Alternative B in the southwest quarter of Section 13, Township 22 South, Range 5 East and proceed east across Section 18, Township 22 South, Range 6 East to the junction with SR10 in the southwest corner of Section 17, Township 22 South, Range 6 East. This alternative would be approximately 9.1 miles in length, but it would bypass the grade on SR10 that now slows loaded coal trucks and potentially slows all northbound traffic on SR10. The acreage impacted would be approximately 96.3 acres.

This alternative would also incorporate features to Alternative B to facilitate livestock movements and trailing, and also facilitate wildlife movements to and from the winter range. The livestock facilities would include fencing portions of the road to keep the livestock off the roadway during the grazing season and during spring and fall trailing. Approximately 16.3 miles of fence would be installed under this alternative design. It is also proposed that five underpasses, approximately 20 feet wide and 70 feet long, would be incorporated in the proposed road to facilitate livestock access to both sides of the fenced road for grazing purposes. Two additional underpasses would be constructed, one under the existing Acord Lakes Road adjacent to the intersection with the proposed Quitchupah Creek Road, and a second under the Quitchupah Creek Road to allow livestock to cross

under both roads at Broad Hollow during spring and fall trailing. To facilitate big game movements in the central canyon, additional underpasses suitable for wildlife may need to be constructed.

#### 3.4 ALTERNATIVE D - WATER HOLLOW ROAD

Water Hollow is a large northeast-southwest trending drainage that cuts through Old Woman Plateau on FLNF. The Water Hollow Route begins at about 7,550 feet AMSL and follows the Alternative B alignment for 2.01 miles of the western-most portion of its alignment. At this point, it crosses Quitchupah Creek and runs approximately parallel to and south of this drainage to Water Hollow. This alternative continues in an easterly direction along an existing jeep trail to Water Hollow Benches where it then turns south to Saleratus Benches. From Saleratus Benches, the Water Hollow alternative then turns northward to connect with SR-10 (Figure 2). Under Alternative D, the road would be 11.3 miles long, with a 1,430 foot overall drop in elevation for an average grade of 2.5 percent. The descent into Water Hollow itself has an average grade of four percent, and the ascent out of Water Hollow onto Water Hollow Bench is seven percent. This alignment crosses several perennial and ephemeral tributary drainages, with extensive cuts and fills necessary to accommodate road construction. The total new surface disturbance would be approximately 146 acres.

## 3.5 ENVIRONMENTAL PROTECTION/ENHANCEMENT MEASURES

# **Measures for All Action Alternatives**

#### Riparian Fencing

The riparian zones of Quitchupah Creek and Convulsion Canyon are now and have been degraded by livestock grazing within the stream bottoms over the years. To alleviate this condition and restore the riparian zones, livestock grazing would be eliminated by the agencies on approximately 4.5 miles of stream through a combination of permit actions, fencing along the proposed road, and cross-fencing where necessary, under any of the action alternatives. The proposed road would become the trail for moving livestock within allotments and between allotments. Fenced watering points would be provided where underpasses allow livestock to pass under the proposed road and access the stream.

The restoration of the riparian zones would improve wildlife and aquatic habitats, reduce sediment discharge to the stream, improve aesthetics, and stabilize the stream channel.

#### Big Game Fencing

In addition, 8-foot high woven wire fence would be installed on both sides of the route under any of the action alternatives, to prevent big game access to the road. Escape structures would be provided every mile.

#### Removal of Carcasses from Road

The haul route would be patrolled twice weekly, on Mondays and Thursdays, during daylight hours, to pick up and dispose of all animal carcasses (wild and domestic, large

and small) in order to keep the road surface clear. This would reduce scavenging on the road surface by raptors and vultures. The concern is that scavengers feeding on larger carcasses that aren't readily removed from the road would be subject to coal truck-wildlife collisions. Scavengers present on the road while feeding could cause unnecessary mortality among the protected raptors. The Sevier County Special Services District would be responsible for removing carcasses to a specified disposal area in accordance with the regulations of the State Board of Health. This would continue for the duration of the life of the mine. The SSD or the SSD's contractor would secure and maintain any necessary license or permits required by State or local authorities to perform this service.

# Measures for Alternative D Only – Water Hollow Route

**Big Game Seedings** 

Under Alternative D, big game critical winter range would be improved with seedings on the upper benches. The existing chainings and seedings completed in the 1950's on Water Hollow and Saleratus Benches are in poor condition and do not support any more forage for elk than the adjacent unseeded sagebrush and pinyon-juniper communities. Proper management and manipulation of vegetation would improve forage for wildlife as well as livestock, while improving soil erosion and watershed conditions (BLM, 1991). BLM prescriptions for mechanical and burning treatments of vegetation as well as seeding can be found in the Final Environmental Impact Statement Vegetation Treatment on BLM Lands in Thirteen Western States (BLM, 1991). The proposed road on Water Hollow Benches would divide many of the old seedings on the winter range. The proposed additional seedings would move the elk and deer away from the road and provide adequate forage to maintain the present herds during winters of heavy snow.

<u>Underpasses</u>

Under Alternative D, in order to maintain passage of big game from one side of the road to the other, three to five open bridge-style structures would be installed over selected drainages across the Water Hollow benches. The location and design of these structures would follow Utah Division of Wildlife Resources recommendations.

## 4.0 SPECIES ACCOUNTS

The USFWS, the Utah Natural Heritage Program (administered by the Utah Department of Wildlife Resources (UDWR) and the Nature Conservancy), and the BLM maintain occurrence records of listed species. These agencies were contacted in order to determine which federally listed species might occur in the project area. It was determined that the BA should address the listed species shown in Table 1. As a note, suitable habitat for the willow flycatcher (*Empidonax traillii*) does occur within the project area on the Fishlake National Forest. The federally listed southwestern willow flycatcher (*E.T. extimus*) was originally listed in Table 1 (January 2002 version) and was discussed in that document. However, the southwestern willow flycatcher is no longer considered to occur on the Fishlake National Forest (USFWS 2002). Therefore, potential impacts to this species are no longer discussed for this project.

A literature search reviewed the preferred habitats, elevational ranges, and occurrence records for each of these species. Dedicated surveys were conducted in the project area to search for these and other listed species. Based upon this information, a determination was made regarding the potential for each species to occur within the project area, or to be directly or indirectly affected by the alternatives. The basis for these determinations is presented in the following discussion.

TABLE 1. FEDERALLY LISTED THREATENED, ENDANGERED, AND CANDIDATE SPECIES POTENTIALLY OCCURRING WITHIN THE QUITCHUPAH CREEK ROAD PROJECT AREA.

Common Name	Specific Name	Federal Status
Jones Cycladenia	Cycladenia humilis var. jonesii	Т
Maguire Daisy	Erigeron maguirei	T
Last Chance Townsendia	Townsendia aprica	Ť
Barneby Reed-Mustard	Schoenocrambe barnebyi	E
San Rafael Cactus (Despain Footcactus)	Pediocactus despainii	Ė
Winkler Cactus (Winkler Footcactus)	Pediocactus winkleri	T
Wright Fishhook Cactus	Sclerocactus wrightiae	E
Heliotrope Milkvetch	Astragalus montii	T
Bald Eagle	Haliaeetus leucocephalus	T
Mexican Spotted Owl	Strix occidentalis lucida	T
Western Yellow-Billed Cuckoo	Coccyzus americanus occidentalis	С
T = Threatened	C = Candidate	

#### 4.1 PLANTS

Several of the listed plant species that have the potential to occur in the project area are restricted to, or most commonly occur on, particular soil types. Soils in the area are generally derived by deposits of quaternary alluvium and gravel deposits. The Project Area cuts through numerous sedimentary geologic formations that include the Mesaverde Group and the Mancos Shale.

# Jones Cycladenia (Cycladenia humilis var. jonesii) - Threatened

Welsh et al. (1987) refer to this species as a "gypsophile" (occurring on gypsum-derived soils), found on "semibarren tracts on geological formations with poor water relationships." The species occurs in Eriogonum-Ephedra mixed desert shrub, and juniper communities at 4,400 to 6,000 feet. As Welsh suggests, the species is found in gypsiferous, saline soils of

the Cutler, Summerville and Chinle formations. Flowering occurs in May and June. This species occurs at lower elevations than those found in the project area (4,400 to 6,000 feet vs. 6,000 to 7,600 feet in the project area) and on formations and soil types which do not occur in the area. This species would not be expected to occur in the project area. Thus, implementation of any of the Alternatives would have **No Effect** on Jones cycladenia.

# Maguire Daisy (Erigeron maguirei) - Threatened

This perennial daisy grows in canyon bottoms in Wingate and Navajo formations, at elevations of 5,380 to 5,700 feet (Welsh et al., 1987). Atwood et al. (1991) cite a higher elevational range of between 5,600 and 7,200 feet. Cronquist et al. (1994) state that the species grows in cliff crevices and the sandy bottoms of washes. Flowering occurs in June and July. The upper elevational range of this species, as reported by Cronquist (7,200 feet), is within the elevations of the project area. Potential habitat for this species (cliff crevices and the sandy bottoms of washes) does occur within the project area, but the geologic formations from which the species has been reported (Wingate, Chinle, and Navajo sandstone formations) are not found in the area. This species is believed to be absent from the project area. Thus, implementation of any of the Alternatives would have **No Effect** on Maguire daisy.

# Last Chance Townsendia (Townsendia aprica) - Threatened

This species grows in salt desert shrub and pinyon-juniper habitats on clay or clay-silt exposures of the Arapien and the Blue Gate member of the Mancos Shale, at elevations between 6,100 to 8,000 feet (Welsh et al., 1987; Atwood et al., 1991). Flowering occurs in April and May. This species is known from locations near the project area (Section 13 of Township 22 South, Range 5 East) and habitat exists in portions of the project corridor. Field surveys in May 1999 and May 2003, however, did not find any occurrence of this species within the project corridor. Implementation of Alternatives B and C would have a May Affect – Not Likely to Adversely Affect impact on last chance townsendia. Implementation of Alternatives A or D would have No Effect on this species.

# Barneby Reed-Mustard (Schoenocrambe barnebyi) - Endangered

Welsh et al. (1987) report that the Barneby reed-mustard occurs in mixed shadscale, *Eriogonum* and *Ephedra* communities in the Chinle Formation between approximately 5,600 and 5,700 feet. Flowering occurs in May. This species occurs at elevations below those found in the project area (5,600 to 5,700 feet vs. 6,000 to 7,600 feet in the project area) and on soils derived from the Chinle Formation. This formation does not occur in the project area. The species is not expected to occur within the project area, thus implementation of any of the Alternatives would have **No Effect** on Barneby reed-mustard.

# San Rafael Cactus (Pediocactus despainii) - Endangered

This species is generally solitary, though it may occur in colonies. Habitat for this cactus is open pinyon-juniper communities on limestone gravels, at an elevation of approximately 6,000 to 6,200 feet (Welsh et al., 1987; Atwood et al., 1991). Flowering occurs from late April to early May. The species occurs at elevations within those found in the project area (6,000 to 6,200 feet compared to 6,000 to 7,600 feet in the project area). Conversations

with the Botanist for the BLM's Richfield Field Office, indicate that this species has the potential to occur within the project area (Armstrong, personal communication June 15, 1999); however, none were located during a May 1999 field visit. As potential habitat occurs, but no plants have been found, implementation of any of the action Alternatives would have a *May Affect* – *Not Likely to Adversely Affect* on the San Rafael cactus.

# Winkler Cactus (Pediocactus winkleri) - Threatened

This diminutive species, also known as the Winkler footcactus, is usually solitary and occurs in salt desert shrub communities in fine textured, poor-quality saline substrates (Welsh et al., 1987). Flowering occurs in late March to mid-May. The Winkler cactus generally occurs at elevations below those found in the project area (4,800 to 5,200 feet compared to 6,000 to 7,600 feet in the project area). Although this species may be found near the lower boundary of the project area (Armstrong, personal communication June 15, 1999), May 1999 field survey confirmed none were located within the project area. As potential habitat occurs, but no plants have been found implementation of any of the action Alternatives would have a *May Affect – Not Likely to Adversely Affect* on Winkler cactus.

# Wright Fishhook Cactus (Sclerocactus wrightiae) - Endangered

Habitat for this species is salt desert shrub and shrub-grass to juniper communities on the Mancos Shale (Blue Gate, Tununk, Emery and Ferron members), Dakota, Morrison, Summerville and Entrada formations, at elevations of between 4,800 to 6,100 feet (Welsh et al., 1987). Flowering occurs in April to May. This species has been found in soils not in the project area, but at elevations that coincide with the project area elevation (4,800 to 6,100 feet vs. 6,000 to 7,600 feet in the project area). However, the Wright fishhook cactus was not observed during a May 1999 field survey, and it is expected that implementation of any of the Alternatives would have **No Effect** on Wright fishhook cactus.

# Heliotrope Milkvetch (Astragalus montii) - Threatened

Welsh et al. (1987) state that the heliotrope milkvetch is known only from the Flagstaff Limestone on the Wasatch Plateau, at an elevation of approximately 11,000 feet. Atwood et al. (1991) cite the habitat for this species as being alpine areas in a mixed grass-forb community on windblown ridges and snowdrift sites, at elevations of 10,500 to 11,000 feet. Flowering occurs in July to August and the species occurs at elevations approximately 2,900 feet higher than those found in the project area. As an alpine species, it is not expected to occur in the (non-alpine) project area. Thus, implementation of any of the Alternatives would have **No Effect** on heliotrope milkvetch.

#### 4.2 WILDLIFE

# Bald Eagle (Haliaeetus leucocephalus) - Threatened

During the breeding season, bald eagles are closely associated with water occurring along coasts, lakeshores, or riverbanks, where they feed primarily on fish. Bald eagles typically nest in large trees, primarily cottonwoods (*Populus* sp.) and conifers, although they have

also been known to nest on projections or ledges of cliff faces (Call, 1978). Due to the large size of their nests, bald eagles usually build these structures in a tree which is the largest or stoutest in the immediate vicinity (Call, 1978). Two characteristics common to most nesting sites are a clear flight path to at least one side of the nest and excellent visibility, often with an unobstructed view of water. Most nests are in the top third of a living tree, with live foliage above the nest providing shade and protection during poor weather (Green, 1985). Breeding territories, including the nest tree and favored nearby perches, are defended against other eagles. Alternate nests are also common within the territory. Breeding territories are typically 250 to 500 acres in size (Swenson et al., 1986).

During winter, bald eagles concentrate wherever food is available. Areas of open water, where fish and waterfowl can be caught, are common wintering sites. Root (1988) notes that Christmas Bird Count data show concentrations of bald eagles occur near rivers, particularly near wildlife refuges where eagles prey on waterfowl, and near power plants, where cooling water discharges tend to keep some waters open (ice-free). Upland areas are also used in winter, where eagles feed on small mammals and deer carrion. Communal winter roosts are common and located in forested stands that provide protection from the weather. Bald eagles can live away from water and in the absence of fish. In such cases, they feed on carrion or hunt terrestrial prey. Black-tailed jackrabbits taken as carrion can be quite important in these situations (Ryser, 1985).

No bald eagle nests have been found near the project area. Most sightings have been made in the Joes Valley Reservoir and Huntington Canyon areas, the closest of which (Joes Valley Reservoir) is approximately 17 miles north of the project area (USDA-FS Files). A bald eagle nest has been reported in the vicinity of Castle Dale, over 20 miles northeast of the project area boundary. No roost sites have been found in the project area, and bald eagles are not expected to occur in the area except as transient birds. Even though big game fencing and bi-weekly carcass removal would be part of the mitigation requirements, it is possible that bald eagles may land on the roadway and be killed by vehicle traffic. Thus, implementation of any of the Alternatives would have a *May Affect*—*Not Likely to Adversely Affect* on bald eagles.

#### Mexican Spotted Owl (Strix occidentalis lucida) - Threatened

The Mexican spotted owl (MSO) is the only subspecies of spotted owl that occurs in Utah. The owl is known to nest only in steep-walled canyons of the Colorado Plateau ecoregion and adjacent portions of the Utah Mountains ecoregion. The closest known nest site to the area is located approximately 40 miles east, at the north end of Capitol Reef National Park. According to the 14 August 2002 federally protected species by county list for Utah, MSOs are not listed in Sevier County, but are listed in Emery County. Potentially suitable habitat does occur within portions of the project area within Sevier County, but not within the portions of the project area within Emery County. Nonetheless, dedicated surveys for the MSO were conducted a total of four times in May and June of 2002. No MSOs were detected during these surveys. Implementation of any of the Alternatives would have **No Effect** on MSOs.

Western Yellow-billed Cuckoo (Coccyzus americanus occidentalis) - Candidate In Utah, the yellow-billed cuckoo was historically uncommon to rare. Habitat for this species in Utah typically consists of large blocks of riparian habitat that include cottonwood trees below an elevation of 6,000 feet (personal communication between Fishlake National Forest and USFWS on September 5, 2001). Two recent breeding records in Utah have been documented: one on the Green River in 1992 and the second within the Matheson Wetland Preserve near Moab in 1994 (USFWS 12-month petition finding July 25, 2001). Three yellow-billed cuckoos were also recorded during an intensive survey effort conducted throughout the Salt Lake Valley prior to 1998. Habitat for this species is essentially nonexistent or extremely limited within the project area; thus, dedicated surveys for the yellow-billed cuckoo were deemed unnecessary. The yellow-billed cuckoo is not expected to occur in the project area or general vicinity. Implementation of any of the Alternatives would have **No Effect** on the species.

#### 5.0 SUMMARY

This BA evaluates the potential for each listed species to be directly or indirectly impacted by any of the Alternatives. This assessment is based on a review of the species' preferred habitats (as described above) and its recorded occurrence locations in the area. Based upon this information, a determination was made regarding the potential for each species to be directly or indirectly affected by the Alternatives. Table 2 summarizes the effects analysis for the federally listed species potentially occurring in the project area. This table includes the rationale for the determinations related to each alternative.

In the case of species which clearly do not occur in the area and have no potential to be directly or indirectly impacted by the project (e.g., plant species occurring at elevations outside that of the Project Area), a "No Effect" determination was made. In the case of species which occur or may occur in the area and which may be directly or indirectly affected by an Alternative, a further evaluation of potential impacts follows.

#### Alternatives A, B, C, and D

Under Alternatives B and C, a May Affect – Not Likely to Adversely Affect determination was made for the Last Chance Townsendia as it is known to occur near the project area and habitat exists within the project corridor. Under any action alternative, a determination of May Affect – Not Likely to Adversely Affect was made for San Rafael CactusWinkler Cactus as potential habitat occurs, but the species was not found during surveys. Under any action alternative, a determination of May Affect – Not Likely to Adversely Affect was made for bald eagle, because wintering migratory eagles may be found on the newly constructed road in search for carrion. No impacts to any of the other listed species were identified for any of the action alternatives or the No Action Alternative. The future status of each of the listed species is not expected to be influenced by this Project.

POTENTIAL OCCURRENCE AND EFFECTS ANALYSIS OF FEDERALLY LISTED THREATENED, ENDANGERED, PROPOSED, AND CANDIDATE PLANT AND ANIMAL SPECIES IN THE QUITCHUPAH CREEK ROAD PROJECT AREA. TABLE 2

Species	ALTA	ALTB	ALTC	ALTD	RATIONALE
Jones Cycladenia	Ä	J.	UZ V	Ш	Not known to occur in the Action Area <sup>1</sup> ; occurs at lower elevations and on formations and soils not in the area.
Maguire Daisy	HZ.	Ш	Ш	Щ	Not known to occur in the Action Area; occurs on geologic formations not found in the area.
Last Chance Townsendia	E E	MA-NLAA	MA-NLAA	Ш	Not discovered during surveys; occurs in the area and habitat is present within the project corridor.
Barneby Reed-Mustard	빌	В П	N N	Ш	Not known to occur in the Action Area; occurs at lower elevations and on different geologic formations than those found in the area.
San Rafael Cactus (Despain footcactus)	뷜	MA-NLAA	MA-NLAA	MA-NLAA	Not discovered during surveys, but potential habitat occurs.
Winkler Cactus	뵘	MA-NLAA	MA-NLAA	MA-NLAA	Not discovered during surveys, but potential habitat occurs.
Wright Fishhook Cactus	岁	Ш И	ΞN	N N	Not known to occur in the Action Area.
Heliotrope Milkvetch	빌	ШZ	N N	Ä	Not known to occur in the Action Area; occurs in alpine habitats not found in the area.
Bald Eagle	Щ	MA- NLAA	MA-NLAA	MA-NLAA	Does not make regular use of the Action Area; however wintering migratory eagles may utilize road corridor in foraging.
Mexican Spotted Owl	N N	NE	NE	NE	Not known to occur in or near Action Area.
Yellow-billed Cuckoo	뮏	NE	NE	NE	Not known to occur in or near Action Area.
NE = No Effect MA-LAA = May Affec	ct ect -Likel	No Effect May Affect -Likely to Adversely Affect	y Affect	MA-	MA-NLAA= May Affect -Not Likely to Adversely Affect BE = Beneficial Effect
The Action Area includes	oll prope	to be affected	4 directiv or inc	lirectly by the	The Action and not merely the immediate area involved in the action and not merely the immediate area involved in the action

¹ The Action Area includes all areas to be affected directly or indirectly by the federal action and not merely tne immed

## 6.0 CUMULATIVE EFFECTS

Cumulative effects analysis for a BA addresses "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR Page 377)." No known cumulative effects on federally listed species are expected as a result of past, present, or reasonably foreseeable actions.

## 7.0 LITERATURE CITED

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# APPENDIX G SOILS TABLE

# SOIL RESOURCES IN THE PROJECT AREA

			FORES	T SERVICE	SOILS					
USFS Map Symbols	Soil Series components and Inclusions	Taxonomic Classifications	Landscape Position and Slope3	Elevation AMSL4 (feet)	Water Erodibility (K Factor)	Wind Erodibility	Salinity	Drainage Class8	Permeability	Erosion Hazards
	(component - 50%)	Lithic Ustic Torriorthents	Ridgetops 15 - 60% slopes		0.15	8	Non-saline	Well drained	Moderately rapid	High
21A	(component - 30%)	Ustic Torriorthents	Mountansides 15 - 60% slopes	7,280 to 8,425	0.17	8	Non-saline	Well drained	Moderately rapid	Moderate
	(component - 10%)	Rock Outcrops	Intermixed		_					
57	(component - 80%)	Typic Argiustolls	Hillsides 10 - 40% slopes	7,400 to 8,200	0.28	6	Non-saline	Well drained	Moderately slow	Slight to Moderate
58	(component - 50%)	Lithic Ustorthents	Ridgetops 25 - 60 % slopes	7,300 to	0.15	8	Non-saline	Well drained	Moderately rapid	High
	(component - 30%)	Typic Ustorthents	Mountainsides 25 - 60% slopes	8,400	0.20	8	Non-saline	Well drained	Moderately rapid	Moderate to high
69	(component - 50%)	Cumulic Haplustolls	Riparian Areas 0 - 8% slopes	6,880 to	0.32	6	Non-saline	Well drained	Moderate	None to slight
	(component - 30%)	Fluvaquentic Haplustolls	Riparian Areas 0 - 8% slopes	7,360	0.37	6	Non-saline	Moderately well drained	Moderately slow	None
73	(component - 50%)	Ustic Haplocryalfs	Mountainsides 25 - 60% slopes	6,950 to	0.28	6	Non-saline	Well drained	Moderate	Moderate
, 3	(component - 25%)	Ustic Eutrochrepts	Mountainsides 25 - 60% slopes	8,257	0.24	5	Non-saline	Somewhat excessively	Rapid	Moderate to high
	(component - 50%)	Ustic Haplargids	Mountainsides 25 - 60% slopes		0.28	6	Non-saline	Well drained	Moderately slow	Moderate
74	(component - 25%)	Typic Haplustalfs	Mountainsides 15 - 60% slopes	6,995 to 8,250	0.32	6	Non-saline	Well drained	Moderately slow	Moderate
	(component - 15%)	Lithic Ustic Haplargids	Ridgetops 15 - 60% slopes		0.17	6	Non-saline	Well drained	Moderate	Moderate to high

			FORES	T SERVICE	SOILS					
USFS Map Symbols	Soil Series components and Inclusions	Taxonomic Classifications	Landscape Position and Slope3	Elevation AMSL4 (feet)	Water Erodibility (K Factor)	Wind Erodibility	Salinity	Drainage Class8	Permeability	Erosion Hazards
77	(component - 65%)	Ustic Haplocryalfs	Hillsides 8 - 25% slopes	7,250	0.28	6	Non-saline	Well drained	Moderately slow	Slight
//	(component - 25%)	Ustollic Haplocryalfs	Hillsides 8 - 25% slopes	to 8,000	0.28	6	Non-saline	Well drained	Moderately slow	Slight
78	Undifferentiated Group	Typic Ustorthents & Rubblelands	Hillsides and Mountainsides (very steep)	6,925 to 7,850	0.20	6/8	Non-saline	Variable	Moderate	Slight to high
Gerst-	Gerst Series	Ustic Torriorthents	sides of mesas, benches, terraces, and canyons; mountain and hill slopes 3-70% slopes	5,500-7,500	0.05-0.24	8	non-saline	well drained	moderately slow	severe
Travessilla- Chupadera Association 1 to 15% slopes 254	Travessilla Series	Lithic Ustic Torriorthents	mesas, benches, canyon sides; mountain and foot slopes 1-80% slopes	5,500-7,500	0.28	3	non-saline	well drained	moderately rapid	high
	Chupadera	Ustollic Calciorthids	benches and terraces 1-15% slopes	5,600-7,400	0.32	3	non-saline	well drained	moderately rapid	moderate
Gerst-	Gerst Series	Ustic Torriorthents	sides of mesas, benches, terraces, and canyons; mountain and hill slopes 3-70% slopes	5,500-7,500	0.05-0.24	8	non-saline	well drained	moderately slow	severe
Travessilla- Strych-Rock Outcrop complex, 1 to 30% slopes 255	Travessilla Series	Lithic Ustic Torriorthents	mesas, benches, canyon sides; mountain and foot slopes 1-80% slopes	5,500-7,500	0.28	3	non-saline	well drained	moderately rapid	high
	Strych Series	Ustic Haplocalcids	canyon and escarpments sideslopes, generally on toeslopes and south aspects 20-80% slopes	5,500-7,500	0.2	8	non-saline	well drained	moderately rapid	moderate to high

		-	FOI	REST SERVICE	SOILS					
NRCS Map Unit	Soil Series components and Inclusions	Taxonomic Classifications	Landscape Position and Slope3	Elevation AMSL4 (feet)	Water Erodibility (K Factor)	Wind Erodibility	Salinity	Drainage Class8	Permeability	Erosion Hazards
Cabba-Strych- Badland	Cabba Series	Typic Ustorthents	benches, canyon rims, steep canyon sides 3-70% slopes	5,000-8,200	0.17	8	non-saline	well drained	moderately permeable	moderate
complex, 3 to 70 percent slopes 261	Strych Series	Ustic Haplocalcids	canyon and escarpments sideslopes, generally on toeslopes and south aspects 20-80% slopes	5,000-8,200	0.2	8	non-saline	well drained	moderately rapid	moderate to high
Moffat fine sandy loam, 1 to 6 percent slopes 522	Moffat Series	Typic Haplocalcids	alluvial fans and benches 1-6% slopes	5,400-5,600	0.24	3	non-saline	well drained	moderately rapid	moderate
Strych very stony loam, dry, 3 to 30 percent slopes 534	Strych Series	Ustic Haplocalcids	canyon and escarpments sideslopes, generally on toeslopes and south aspects 20-80% slopes	5,400-6,400	0.2	8	non-saline	well drained	moderately rapid	moderate to high
Gerst-Strych- Badland	Gerst Series	Ustic Torriorthents	sides of mesas, benches, terraces, and canyons; mountain and hill slopes 3-70% slopes	6,100-7,200	0.05-0.24	8	non-saline	well drained	moderately slow	severe
complex, 3 to 50 percent slopes 569	Strych Series	Ustic Haplocalcids	canyon and escarpments sideslopes, generally on toeslopes and south aspects 20-80% slopes	6,100-7,200	0.2	8	non-saline	well drained	moderately rapid	moderate to high
Hernandez- Chupadera	Hernandez Series	Ustollic Calciorthids	fan terraces 1-8% slopes	5,600-7,400	0.28	4L	non-saline	well drained	moderate	moderate
complex, 1 to 8 percent slopes AKC2	Chupadera Series	Ustollic Calciorthids	benches and terraces 1-15% slopes	5,600-7,400	0.32	3	non-saline	well drained	moderately rapid	moderate
Beebe loamy fine sand, 1 to 3 percent slopes BeB	Beebe Series	Typic Torrifluvents	alluvial fans and flood plains 0-6% slopes	4,000-6,500	0.49	2	moderate to very strongly	well drained	rapid	high

			FOR	REST SERVICE	SOILS					
NRCS Map Unit	Soil Series components and Inclusions	Taxonomic Classifications	Landscape Position and Slope3	Elevation AMSL4 (feet)	Water Erodibility (K Factor)	Wind Erodibility	Salinity	Drainage Class8	Permeability	Erosion Hazards
Badland- Rubbleland- Rock Outcrop complex, 50 to 80 percent slopes BY	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
Chipeta-Badland complex, 3 to 20 percent slopes CBF2	Chipeta Series	Typic Torriorthents	hills 1-20% slopes	5,400-6,100	0.43	4L	moderate to strong	well drained	slow	very high
Shupert-Winetti complex, 1 to 8	Shupert Series	Typic Ustifluvents	narrow valley and canyon floors 1-8% slopes	4,600-7,200	0.24	8	non-saline	well drained	slow	moderate
percent slopes CIC	Winetti Series	Typic Ustifluvents	narrow valley and canyon floors 1-8% slopes	4,600-7,200	0.2	8	non-saline	well drained	moderately rapid	slight
Persayo- Greybull-	Persayo Series	Typic Torriorthents	hillslopes 1-30% slopes	5,400-5,700	0.10-0.37	4L-8	slightly to strongly	well drained	moderately permeable	moderate
Utaline complex, 5 to 15	Greybull Series	Typic Torriorthents	foot slopes of shale hills 3 to 8% slopes	5,400-5,700	0.37	4L	non-saline	well drained	moderately slow	moderate
percent slopes COD2	Utaline Series	Typic Haplocalcids	mesas, high terraces, and fan remnants 1-25% slopes	5,400-5,700	0.28	8	non-saline	well drained	moderate	moderate to high
Comodore- Datino Variant	Comodore Series	Lithic Haploborolls	mountain slopes 50-70% slopes	6,800-8,100	0.10	8	non-saline	well drained	moderate	high
complex, 40 to 60 percent slopes DHG2	Datino Variant	Typic Haploborolls	mountain slopes 15-80% slopes	6,800-8,100	0.02	8	non-saline	well drained	moderate	high
Ferron silt loam, 0 to 3 percent slopes Fr	Ferron Series	Typic Fluvaquents	alluvial fans and alluvial valley bottoms 0-3% slopes	5,400-5,700	0.49	8	slight to strong	poorly drained	moderate	slight

			FOI	REST SERVICE						
NRCS Map Unit	Soil Series components and Inclusions	Taxonomic Classifications	Landscape Position and Slope3	Elevation AMSL4 (feet)	Water Erodibility (K Factor)	Wind Erodibility	Salinity	Drainage Class8	Permeability	Erosion Hazards
Glenberg- Pherson- Colorow	Glenberg Series	Ustic Torrifluvents	flood plains, valley floors, and low terraces 1-6% slopes	5,000-7,000	0.32	2	non-saline	well drained	moderately rapid	moderate
Complex, 0 to	Pherson Series	Ustic Torrifluvents	drainageways 2-15% slopes	5,000-7,000	0.25-0.34	4	non-saline	well drained	moderately rapid	slight
slopes GLC	Colorow Series	Oxyaquic Torrifluvents	floodplains, fans, low terraces 0-4% slopes	5,000-7,000	0.32	2	non-saline	moderately well drained	moderately rapid	moderate
Ravola-Gullied	Ravola Series	Typic Torrifluvents	alluvial fans and narrow valley floors 1-6% slopes	5,300-6,000	0.49	4L	non- to moderate	well drained	moderately permeable	moderate
Land-Libbings- Hunting (saline)	Gullied Land Series	N/A*	N/A*	5,300-6,000	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
complex, 0 to 10 percent slopes Gu	Libbings Series	Gypsic Aquisalids	foot slopes or shale hills 0-3% slopes	5,300-6,000	0.43	4L	strongly saline	poorly drained	slow	moderate
	Hunting Series	Aquic Torrifluvents	alluvial fans and valley floors 1-3% slopes	5,300-6,000	0.43	4L	slight to strong	somewhat poorly drained	moderate	slight
Hunting loam, 1 to 3 percent slopes Hn	Hunting Series	Hunting Series	Aquic Torrifluvents	alluvial fans and valley floors 1-3% slopes	5,400-5,700	0.43	4L	slight to strong	somewhat poorly drained	moderate
Persayo- Greybull	Persayo Series	Typic Torriorthents	hillslopes 1-30% slopes	5,400-5,700	0.10-0.37	4L-8	slightly to strongly	well drained	moderately permeable	moderate
complex, 3 to 8 percent slopes KAC	Greybull Series	Typic Torriorthents	foot slopes of shale hills 3 to 8% slopes	5,400-5,700	0.37	4L	non-saline	well drained	moderately slow	moderate
Podo-Rock Outcrop complex, 50 to 70 percent slopes KXH	Podo Series	Lithic Ustorthents	canyon slopes 30-80% slopes	5,200-8,900	0.15	8	non-saline	well drained	moderately rapid	moderate

			FOI	REST SERVICE	SOILS					
NRCS Map Unit	Soil Series components and Inclusions	Taxonomic Classifications	Landscape Position and Slope3	Elevation AMSL4 (feet)	Water Erodibility (K Factor)	Wind Erodibility	Salinity	Drainage Class8	Permeability	Erosion Hazards
Minchey- Clifsand	Minchey Series	Typic Haplocalcids	benches and mesas 1-3% slopes	5,500-6,000	0.37	4L	non-saline	well drained	moderate	moderate
complex, 0-30 percent slopes MsB	Clifsand Series	Typic Haplocalcids	mesas and benches 3-10% slopes	5,500-6,000	0.28	8	non-saline	well drained	rapid	moderate to high
	Podo Series	Lithic Ustorthents	canyon slopes 30-80% slopes	5,900-9,000	0.15	8	non-saline	well drained	moderately rapid	moderate
Podo-Cabba- Doney Family complex, 2 to 70	Cabba Series	Typic Ustorthents	benches, canyon rims, steep canyon sides 3-70% slopes	5,900-9,000	0.17	8	non-saline	well drained	moderately permeable	moderate
percent slopes MUE	Doney Family Series	Typic Haplocryalfs	mountain sideslope, generally north aspect or in draws 20-80% slopes	5,900-9,000	0.2	8	non-saline	well drained	moderate	moderate
, p.	Lazear Series	Lithic Ustic Torriorthents	ridges and edges of mesas 0-35% slopes	5,200-8,000	0.2-0.28	4L	non-saline	well drained	moderately permeable	severe
Lazear-Pinon-Gerst complex, 5 to 30 percent	Pinon Series	Lithic Ustollic Calciorthids	knolls, ridges, mesas and hillslopes 1-30% slopes	5,200-8,000	0.2-2.8	4L	non-saline	well drained	moderately slow	N/A*
slopes NFE	Gerst Series	Ustic Torriorthents	sides of mesas, benches, terraces, and canyons; mountain and hill slopes 3-70% slopes	5,200-8,000	0.05-0.24	8	non-saline	well drained	moderately slow	severe
Gerst-Lazear- Badland complex, 2 to 65	Gerst Series	Ustic Torriorthents	sides of mesas, benches, terraces, and canyons; mountain and hill slopes 3-70% slopes	5,200-8,000	0.05-0.24	8	non-saline	well drained	moderately slow	severe
percent slopes NNE2	Lazear Series	Lithic Ustic Torriorthents	ridges and edges of mesas 0-35% slopes	5,200-8,000	0.2-0.28	4L	non-saline	well drained	moderately permeable	severe
Haverdad loam, alkali, 0 to 3 percent slopes OCA2	Haverdad Series	Ustic Torrifluvents	alluvial fans, fan terraces, and valley floors 1-8% slopes	5,600-6,200	0.32	4L	non-saline	well drained	moderately permeable	moderate

			FOI	REST SERVICE	SOILS					
NRCS Map Unit	Soil Series components and Inclusions	Taxonomic Classifications	Landscape Position and Slope3	Elevation AMSL4 (feet)	Water Erodibility (K Factor)	Wind Erodibility	Salinity	Drainage Class8	Permeability	Erosion Hazards
Penoyer Variant loam, 1 to 3 percent slopes PeB	Penoyer Variant Series	Typic Torriorthents	alluvial fans and valley floors 1-6% slopes	5,400-6,000	0.43	4L	non- to slighty saline	well drained	moderate	moderate
Penoyer Variant loam, 3 to 6 percent slopes PeC2	Penoyer Variant Series	Typic Torriorthents	alluvial fans and valley floors 1-6% slopes	5,400-5,900	0.43	4L	non- to slighty saline	well drained	moderate	moderate
(Similar to) Penoyer Variant loam, 3 to 6 percent slopes PsC2	Penoyer Variant Series	Typic Torriorthents	alluvial fans and valley floors 1-6% slopes	5,400-5,900	0.43	4L	non- to slighty saline	well drained	moderate	moderate
Ravola-Toddler complex, 1 to 6 percent slopes	Ravola Series	Typic Torrifluvents	alluvial fans and narrow valley floors 1-6% slopes	4,550-5,800	0.49	4L	non- to moderate	well drained	moderately permeable	moderate
RIA2	Toddler Series	Typic Torrifluvents	lake terraces and fans 1-6% slopes	4,550-5,800	0.24	5	strongly saline	well drained	moderate	moderate
Ravola loam, 1 to 3 percent slopes RIB	Ravola Series	Typic Torrifluvents	alluvial fans and narrow valley floors 1-6% slopes	5,400-5,800	0.49	4L	non- to moderate	well drained	moderately permeable	moderate
Ravola loam, 1 to 6 percent slopes, eroded RIC2	Ravola Series	Typic Torrifluvents	alluvial fans and narrow valley floors 1-6% slopes	5,300-6,000	0.49	4L	non- to moderate	well drained	moderately permeable	moderate
Ravola- Slickspots complex, 0 to 10 percent slopes RuB2	Ravola Series	Typic Torrifluvents	alluvial fans and narrow valley floors 1-6% slopes	5,300-5,900	0.49	4L	non- to moderate	well drained	moderately permeable	moderate
Clifsand, 1 to 8 percent slopes SID2	Clifsand Series	Typic Haplocalcids	mesas and benches 3-10% slopes	5,000-6,500	0.28	8	non-saline	well drained	rapid	moderate to high

			FOI	REST SERVICE	SOILS					
NRCS Map Unit	Soil Series components and Inclusions	Taxonomic Classifications	Landscape Position and Slope3	Elevation AMSL4 (feet)	Water Erodibility (K Factor)	Wind Erodibility	Salinity	Drainage Class8	Permeability	Erosion Hazards
Stormitt- Minchey complex, 1 to 10	Stormitt Series	Ustic Haplocalcids	hillslopes, benches, and mesas 3-30% slopes	5,500-6,000	0.15	8	non-saline	well drained	moderate	medium
percent slopes SMD2	Minchey Series	Typic Haplocalcids	benches and mesas 1-3% slopes	5,500-6,000	0.37	4L	non-saline	well drained	moderate	moderate
Lazear-Pinon-Rock Outcrop	Lazear Series	Lithic Ustic Torriorthents	ridges and edges of mesas 0-35% slopes	5,200-7,200	0.2-0.28	4L	non-saline	well drained	moderately permeable	severe
complex, 0 to 30 percent slopes THD2	Pinon Series	Lithic Ustollic Calciorthids	knolls, ridges, mesas and hillslopes 1-30% slopes	5,200-7,200	0.2-2.8	4L	non-saline	well drained	moderately slow	N/A*
Trook gravelly fine sandy loam, 2 to 6 % slopes TrC	Trook Series	Typic Calciorthids	fan pediments 2-6% slopes	6,000-8,000	0.32	3	non-saline	well drained	moderate to rapid	slight
Green River- Juva Variant	Green River	Aquic Ustifluvents	flood plains 0-2% slopes	4,600-5,900	0.43	4L	none to slight	moderately well drained	moderate	slight
complex, 0 to 5 percent slopes TY	Juva Variant	Typic Torrifluvents	alluvial fans and valley floors 1-5% slopes	4,600-5,900	0.37	3	non-saline	well drained	moderately rapid	slight

<sup>\*</sup>N/A is not available, the data or information for this soil parameter is not available.

<sup>&</sup>lt;sup>1</sup>Soil series is an official map unit for mapping and describing soils, either mapped as a single series or combined with other series into associations and complexes.

<sup>&</sup>lt;sup>2</sup>Soil taxonomy is the establishment of hierarchies of classes that permit us to understand, as fully as possible, the relationship among soils and between soils.

<sup>&</sup>lt;sup>3</sup>The position in the landforms that the soil series occupies. The slope or grade is expressed in a percentage as an inclination above horizontal (0%).

 $<sup>^4 \! \</sup>text{AMSL}$  is above mean sea level or elevation in feet above seal level (0 feet).

<sup>&</sup>lt;sup>5</sup>The susceptibility of soil surface to erosion by the action of water.

<sup>&</sup>lt;sup>6</sup>A set of classes given integer designations for 1 to 8 based on properties of surface horizon that affect susceptibility to wind erosion.

<sup>&</sup>lt;sup>7</sup>The relative amount of soluble salts in the soil as measured by electrical conductivity.

 $<sup>8 \</sup>text{The relative wetness of the soil under natural conditions as it pertains to wetness due to water table.}$ 

<sup>&</sup>lt;sup>9</sup>The classes are based on the amount of water that would move downward through a saturated in-place soil.

<sup>&</sup>lt;sup>10</sup>The is the probability that erosion damage may occur as a result of site preparation and construction.

# APPENDIX H VEGETATION LISTS

# **Plant Communities and Vegetation Lists by Alternative**

#### **Greasewood Community**

The greasewood community is present throughout the lower elevation portions of the project area, in combination with shadscale and/or sagebrush, rabbitbrush, and patchy understory grasses. Included in this type are pockets of a low shrub community (shadscale and sagebrush) where greasewood is lacking. Species include:

big sagebrush Artemisia tridentata cheat grass Bromus tectorum

greasewood Sarcobatus vermiculatus horsebrush Tetradymia spinosa Mormon tea Ephedra viridis opuntia sp

shadscale Atriplex confertifolia snakeweed Guiterrezia sarothrae

#### **Low Shrub Community**

This low, desert shrub community occurs as inclusions in the greasewood community and is also found on the gently sloping bench at the junction of Alternative C and SR-10. Species may include:

Castle Valley saltbush Atriplex gardneri var. cuneata

cryptanth Cryptantha flava desert buckwheat Eriogonum ovalifolium Sclerocactus whipplei fishhook cactus Artemisia frigida fringed sage galleta grass Hilaria jamesii Jones townsendia Townsendia jonesii low sage Artemisia arbuscula Ephedra viridis Mormon tea Opuntia polyacantha prickly pear scarlet globemallow Sphaeralcea coccinea snakeweed Guiterrezia sarothrae winterfat Ceratoides lanata

#### **Pinyon-Juniper Community**

The pinyon-juniper community type includes areas of sparse juniper on the steep, rocky slopes above Quitchupah Creek Road, as well as pinyon and juniper present on slopes in the upper parts of the canyon.

bluebunch wheatgrass A. spicatum

claretcup cactus Echinocereus triglochidatus greasewood Sarcobatus vermiculatus Indian ricegrass Oryzopsis hymenoides

pinyon Pinus edulis

sagebrush Artemisia tridentata
shadscale Atriplex confertifolia
twinpod Physaria acutifoia
Utah juniper Juniperus osteosperma
western wheatgrass Agropyron smithii
white cryptanth Cryptantha sp.
yucca Yucca sp.

#### **Mountain Brush Community**

The mountain brush community occurs in the bottom areas of the upper canyon and includes patches of gambel's oak as well as bigtooth maple, serviceberry, woods rose, Oregon grape, sagebrush, rabbitbrush, and manzanita.

bigtooth maple Acer grandidentatum

burdock Arctium sp.

chokecherry Prunus virginiana
Gambel's oak Quercus gambellii
Indian ricegrass Oryzopsis hymenoides
manzanita Arctostaphylos patula

Mountain big sagebrush Artemisia tridentata var. Vaseyana

Oregon grape Mahonia repens

rabbitbrush Chrysothamnus nauseosus

sagebrush Artemisia tridentata Salina wildrye Elymus salinus

serviceberry Amelanchier utahensis

willow Salix sp. woods rose Rosa woodsii

#### **Douglas Fir Woodland**

Near the junction of Quitchupah Creek Road and Acord Lakes Road at about 7,600 feet elevation, the vegetation on the north facing slopes transitions to a Douglas Fir Woodland, with Mountain Brush in the drainage bottom. Across the Acord Lakes Road on south facing slopes, the pinyon-juniper community predominates, and includes mountain mahogany.

#### On north facing slope:

aspen Populus tremuloides
bigtooth maple Acer grandidentatum
Douglas fir Pseudotsuga menziesii
Engelmann spruce Picea engelmannii
Gambel oak Quercus gambelii
subalpine fir Abies lasiocarpa
White fir Abies concolor

#### On south facing slope:

mountain mahogany Cercocarpus ledifolius

pinyon Pinus edulis

Utah juniper Juniperus occidentalis

#### **QUITCHUPAH CREEK ROAD ALTERNATIVE B**

Common Name Scientific Name aspen Populus tremuloides

basin big sagebrush A. tridentata var. tridentata

bigtooth maple

birchleaf mountain mahogany

bluebunch wheatgrass

Acer grandidentatum

Cercocarpus montanus

Agropyron spicatum

burdock Arctium sp.

Castle Valley saltbush Atriplex gardneri var. cuneata

cheat grass Bromus tectorum chokecherry Prunus virginiana

claretcup cactus Echinocereus triglochidiatus

Cryptantha sp.

curlleaf mountain mahogany Cercocarpus ledifolius

dock Rumex sp.

Douglas firPseudotsuga menziesiiEaton penstemonPenstemon eatoniiEngelmann sprucePicea engelmannii

erigeron Erigeron sp.

fishhook cactus Sclerocactus parviflorus

fringed sage A. frigida
galleta grass Hilaria jamesii
Gambel's oak Quercus gambelii

gooseberry Ribes sp.

greasewood Sarcobatus vermiculatus
hairy grama grass Bouteloua hirsuta
horsebrush Tetradymia spinosa
horsetail Equisetum sp.
hymenoxys Hymenoxys sp.
Indian paintbrush Castilleja exilis

Indian ricegrass Oryzopsis hymenoides

Jones' townsendia Townsendia jonesii var. jonesii

low sagebrush A. arbuscula

manzanita Arctostaphylos patula

Mormon tea Ephedra sp.
Oregon grape Mahonia repens
pinyon pine Pinus edulis

pricklypear cactus Opuntia polyacantha
serviceberry Amelanchier alnifolia
rabbitbrush Chrysothamnus nauseosus

red-osier dogwood Cornus stolonifera

rubber rabbitbrush Chrysothamnus nauseosus

rush Juncus articus

Russian olive Eleagnus angustifolia saltgrass Distichlis spicata

#### **OUITCHUPAH CREEK ROAD ALTERNATIVE B**

**Scientific Name Common Name** sedge Carex aquatilis shadscale Atriplex confertifolia snakeweed Gutierrezia sarothrae spring-parsley Cymopterus sp.

squawbush Ribes cereum tamarisk Tamarix pentandra

thistle Cirsium sp.

Streptanthus cordatus Twistflower Utah juniper Juniperus osteosperma Uinta groundsel Senecio multilobatus

Rorripa nasturtium-aguaticum watercress

western wheatgrass Agropyron smithii Abies concolor white fir

white virgin's bower Clematis liguisticifolia

wild rose Rosa woodsii willow Salix exigua winterfat Ceratoides lanata

Artemisia tridentata var. wyomingensis Wyoming sagebrush

yellow sweetclover Melilotus officinalis

yucca Yucca sp.

**Common Name** 

In addition to the plant species listed above for Alternate B, the Alternate Junction, Alternative C species list includes the following:

## ALTERNATE JUNCTION/ALTERNATE DESIGN ALTERNATIVE C **Scientific Name**

curlycup gumweed Grindelia squarrosa desert buckwheat Eriogonum sp. hairy plantain Plantago patigonica needle and thread grass Stipa comata prickly sandwort Arenaria aculeata stemless woollybase Hymenoxys acaulis sunray Enceliopsis nudicaulis

thrifty goldenweed Happlopappus armeroides

white tufted evening primrose Oenothera caespitosa

#### WATER HOLLOW ROUTE ALTERNATIVE D

Common Name Scientific Name

basin big sagebrush A. tridentata var. tridentata birchleaf mountain mahogany Cercocarpus montanus

black sagebrush A. nova
bladder-pod Physaria spp.
Castle Valley saltbush Atriplex cuneata

claretcup cactus Echinocereus triglochidiatus

Cryptanth Cryptantha sp.
Eaton penstemon Penstemon eatonii
erigeron Erigeron sp.

fishhook cactus Sclerocactus parviflorus

fringed sage A. frigida

Gambel oak
Pairry grama grass
Anoneysuckle
A

Indian ricegrass Oryzopsis hymenoides

Jones' townsendia Townsendia jonesii var. jonesii

kentrophyta Astragalus kentrophyta
Mormon tea Ephedra torreyana
pallid milkweed Asclepias cryptoceras

pinyon pine Pinus edulis

pricklypear cactus Opuntia polyacantha rubber rabbitbrush Chrysothamnus nauseosus serviceberry Amelanchier alnifolia Simpson footcactus Pediocactus simpsonii slender wheatgrass Elymus trachycaulus snakeweed Gutierrezia sarothrae spring-parsley Cymopterus sp. tamarisk Tamarix chinensis Twistflower Streptanthus cordatus

Uinta groundselSenecio multilobatusUtah juniperJuniperus osteospermawhite snowberrySymphoricarpos albuswoolly locoweedAstragalus mollissimus

Wyoming sagebrush Artemisia tridentata var. wyomingensis

yucca Yucca sp.